At the Endings of Modernism
(A NEW CLASSISM IN ARCHITECTURE)

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Abstract
Classicism appears when dualities are balanced. In other words, it is a resetting approach of humans' intellectual and behavioral development. From one hand, it represents the easiest solutions of every-day life problems that try to compromise between (Theory-Practice). On the other hand, it gives simplest answers to different questions about philosophy and its duality (Mind-World). In both cases, classicism reappears when these dualities are extremely diverge reaching critical thresholds of conflicts. It is necessary, initial and intuitive, stage that can tune, adjust and balance these dualities again as a human's surviving mechanism. Across history, architectural products reflected the real life, the common mood, and the spirit of their own ages. By the end of post post-modern architecture, it seems that we reach critical thresholds that need to be resetting by a new and different kind of classicism.

Keywords:-Modernism, Classicism, (Theory-Practice) duality, (Mind-World) duality, Classical architecture.

1 Introduction

We have heard about the end of modernism for a long time, but the reasons and time for this end have not been determined. Architectural movements are based on a specific philosophy in addition to being fixed in the era in which the movement operates. It is always difficult to pinpoint a specific beginning and end date for cultural and architectural eras. As movements feed off and feed each other, the transition to a new movement tends to be more gradual than we think.

Western civilization is based on thinking in dualities, based on its philosophy, which reveals through its stages multiple dualities that, in one way or another, have remained the basis on which the writings of philosophers are based. This philosophy is based on the distinction between (truth) and (falsehood), which is closely linked to thought [1].

Duality is of a philosophical nature in that it seeks to provide a better understanding of structure and relationships. It is not a complete philosophy, as it does not attempt to define the goals or reason for being, for life, architecture, or any other thing. But in providing a better understanding of relationships, it may provide the basis for a more complete philosophy. Paul Klee states: "A concept is not thinkable without its opposite. The concept stands apart from its opposite." [2].

Dualism is the theory of reality that consists only of two substances that cannot be traced back to their origin, an example of which is matter and spirit. Hegel (1770-1831 AD)expanded on the possibilities of dualism in the interaction between self and other. His research dealt with the heavenly self as a source, which is the self that is open to beings and enables us to understand ourselves and interact with what surrounds us. It is also a duality between the conscious self and everything outside it, because one end of it indicates the beginning, while the other end indicates the end of the action and its goal [3].

The (Mind-Body) problem has preoccupied philosophers since Descartes who mentioned, “We are two, our physical body and our mental body, and that the mind is the focus of our existence” [3]. On the other hand, Locke's (1632-1704) dualism may correspond to the theory of architecture more directly. Locke struggled with the idea that the quantitative appearances of things are primary, meaning that size and shape are more important than the quantitative properties of things [4].

2 Dualisms in Architecture

In architecture, dualisms in general, and contradictions in particular, are among the basic characteristics that architecture has focused on, and many of them have emerged, such as structure-ornamentation, form-function, representation-abstraction, and others. It is the same around which metaphysical thought revolves within a hierarchically distributed systematic structure in which one concept is always original or dominant, while the influence of the other diminishes and is secondary and subordinate. These priorities have been adopted as a basis in many architectural ideas, where form follows function, and decoration is added to the building [4].

Since the 20th century, several architects around the world have begun to develop new architectural solutions by incorporating new

technological tools. Eisenman (1932/) emphasizes abstraction and reduction in early modern architecture through his reductionist approach, through which he tried to reach simple abstract geometric forms, Venturi (2018-1925) stressed that its architects focused on one side of duality rather than the other, and on the principle of this or that, as he said “We grew up under a strict custom. We have lacked the mental flexibility, let alone the intellectual maturity that would allow us to enjoy the highest qualities and balanced reservations that custom allows [4].This is consistent with what Gandilsonas (-1937) proposed regarding modern architecture’s reliance on one of the two dualities and neglect the other. Thus, the traditional rules adopted in all ideas focused on showing one of the dualities and highlighting its meaning, while neglecting the other [5].

As for the architecture of complexity and contradiction (post-modernism), as Venturi called it, it tends to contain both by dispensing with either this or that. And it becomes possible to include elements that are considered good and bad together, large and small, closed and open, structural and spatial. It is an architecture that includes various levels of meaning. Most postmodern architects have confirmed that combining the two sides of duality and displaying them together within the same message generates a pluralistic language and generates enrichment in meaning. And that the principle of both together emphasizes the duality of meaning at the expense of duality of function [6].

The post-modern stage also represented the transition from the industrial era to the information and technology era, and it began to contradict universality through models that relied on contradictory dualities [7].

Deconstructionism attempted to blur or remove the boundaries between binary oppositions to prove that the values and system included in any duality are not solid and that each party in it is included in the other instead of being its polar opposite, and thus the structure collapses. This led Derrida (1930-2004)to call not to depart from the horizon of binary metaphysical oppositions, but rather to shake them from within and reverse their arrangement [8].

In order to reach the beginning of modernity, It was Nietzsche's (1844-1900) views on nihilism that established abstraction, which distinguished the philosophy of the beginning of the nineteenth century, and many philosophical trends emerged successively, as the philosophical approach of the Bauhaus (1919-1930), dominated this era as well, which was mainly linked to functionalism. After that, pure functionalism arose through the Chicago School architects and among its pioneers was Mies Van der Rohe (1886-1969)’ the German who had the principle that “architecture must submit to life and serve it, and it does not have to impose an imposition on man and society. This was the beginning of modernity [9].

At the end of the last century, many architects tried to save architecture from the fixed, repetitive form that was common in modernist architecture and try to link its form to function, meaning that there is no fixed form for architecture as long as it is not from one function of architecture. Architects such as Robert Venturi (1929-2018), who coined the saying “the least boring,” and Frank Gehry (1929) followed this principle [10].

3 What is Classism?

To obtain a definition of the concept of "classicism" let us cast a glance at earlier periods of classicism in western history: The architectural history of Europe has seen several periods of classicism. to responsible for the general appearance of any larger town and city in European and western countries.

The spark of research in cognitive sciences began from a purely philosophical standpoint through ideas related to cosmology, as the first scientific curiosity and recognition of the importance of the individual was initiated by the Greeks [11].

By starting to research little by little into Greek thought, beginning with the first intellectual revolution around the years 700-500 B.C. whose ideas crystallized in the search for universals. This revolution was followed by the emergence of many philosophers, such as the philosopher Thales (547-625 B.C.), who presented the origin of material existence. Then Pythagoras (570- 495B.C.) came up with a new concept by imagining that the soul is not an essential thing linked to the material world. Heraclitus (Heraclitus/active 504 B.C.) believed that nothing remains the same [12].

Before the emergence of the first classicism, the second phase of Greek philosophy appeared, represented by the Sophists, trying to explain the nature of the material world. But they created perceptions that were very far from common sense, and the Sophists called to question the entire thought of natural philosophy.

Then the features of classicism emerged and began to appear in the thought of the Greek philosopher Socrates (470-399 B.C.) who is considered the first to face the challenge posed by the philosophers before him, as he shifted the focus of Greek philosophy from nature to (a mind that opposes), and acknowledged the existence of relative truths.

The philosophers after Socrates and his classical intellectual revolution desired objective and

subjective knowledge and embarked on an ambitious philosophical journey to show how the individual and subjective mind could understand it. Among the most prominent of these philosophers were Plato (427- 347B.C.) and his idealism, which recognized the objective existence of the idea, and Aristotle (384- 322B.C.) and his famous empiricism.

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After Plato and Aristotle, the philosophers inherited the philosophical conflict after them. Some of them resorted to considering Platonism as a compatibility between new intellectual trends and modern concepts. Neoplatonism appeared with the emergence of Roman civilization, and it was not long before the Church prevailed and dominated, which changed the direction of philosophical research and made it limited. Through the search for God, His existence, and the truth of His attributes, and because of this change that accompanied the growth of the Church, and the scholastic period at the beginning of the eleventh century, which was characterized by the emergence of thinkers and philosophers again. The second classicism (Renaissance classicism) emerged, which focused on the necessity of separating the divine from the secular [13].

The third classicism, appeared in the era of the development of philosophy, science, literature, and the discovery of the new world as a form for the modern world in the Renaissance. The period after the emergence of Renaissance classicism passed through three successive stages, beginning with the Early Renaissance, in which architects tried to express rational ideas. Then the High Renaissance came, which, like the Greeks, was keen on architecture to record nature more accurately. The last of these was the Late Renaissance, and its artists and architects did not commit to imitating reality but rather resorted to Exaggeration and Extremism. New architectural styles emerged, such as Rococo and Baroque (14).

Although the primary relevance of duality in architecture leads to its expression in architectural form, the concept is also useful in the theory and process which leads to expression. In the theory of architecture, the question of form and function has until recently been of primary importance. Which follows which? The question of space and mass, space and form, or solid and void has provoked similar questions with regard to which is the more relevant. In reality form and function give birth to each other when both terms are considered in their broadest contexts where "form includes content drawn from life" as well as the shape of space and mass, and function is understood to include intellectual and spiritual, as well as physical functions [15].

4. Sense-Experience in the Early Modernism / (1920~1950):

Modernism grew to introduce one aspect of dualism in the form of individualism as the basis of its concepts. Based on research into early 19th-century philosophy and its influence on architecture, functionalism proved its importance as a theory with the Chicago fire and the urgent need for buildings that directly responded to and were built upon the data of the reconstruction phase. The Chicago fire was an experience that hurt society.

Technical progress was strong and widespread globally in this period, which made the construction industry, traditionally known for its industrial backwardness, begin to move towards the industrial production of prefabricated buildings, or their parts and materials, in large quantities. This expansion in the production of prefabricated buildings has removed them from the supervision of individuals and now under the supervision of institutions that seek a functional, economic architecture that will achieve quick material gains and profits. We also see it clearly in the Schroeder House, which is one of the symbols of modernist architecture, designed by the Dutch architect Gerrit Rietveld, in 1924. See figure (1).

So, philosophers in this period resorted to what is known as functionalism, which is the philosophy of mind, where mental states (beliefs, desires, pain, etc.) are formed only through their functional role, that is, their causal relationships with other mental states, sensory inputs, and behavioral outputs. It was a protest against structuralism, which studied the contents of consciousness [16].

In architecture, the function has been interpreted as a principle that architects say they design a building based solely on its purpose. Based on Vitruvius (80-70 B.C-23 AC)approach, function stands with beauty and utility as the goals of architecture (18). One of the most famous architects of this stage is Louis Sullivan (1856-1924), who coined the saying (less is more) that transformed architectural form into its function while using architectural design to express design elements and construction methods instead of hiding them [17].

This is clear and obvious in the Wainwright Building, which consists of ten floors and is considered one of the first skyscrapers in the world, (figure 2). In this building, the basic elements of skyscraper buildings appear in a systematic rhythm that adopts a systematic system of dividing the facade into three main sections, where the way it is expressed depends on the type of function included in the different levels of the building [18].

Thus, the architecture of the international style with its rational philosophy in this period became devoid of meanings and content. What is known about modern architecture is simplicity in appearance and avoidance of additions and decorations, which made modern architects consider design to be the deletion of everything unnecessary, or as Mies van der Rohe slogan was “Less is more” This simplicity has led to these functional buildings that have become repetitive glass cubes that do not distinguish from each other, which has lost their personality and uniqueness as their characteristics.
So its architecture was known for its logic, which is based on clear and explicit scientific rules and principles by adopting the resulting forms on the nature of the construction materials used. Mies van Drohe left his mark through a group of projects, most notably the National Museum of Berlin, and groups of office and commercial buildings. (figure 3)

Figure 1. Rietveld Schroeder House in the Netherlands, considered one of the symbols of modern architecture. Designed by Dutch architect Gerrit Rietveld,
Source; [31]

Figure 2. The Wainwright Building in the United States and its abandonment of the decoration prevailing in skyscrapers at the time.
Source; [19]

Figure 3. The Crown Hall building in Chicago is a masterpiece by Mies van der Rohe, and is considered one of the most architecturally important buildings of the Modernist movement during the twentieth century.
Source; [32]

5. The Common-Sense of the Late Modernism / (1950~1970):

After architects focused on the positives of the early modernist style of architecture and immersed themselves in it, many critics and architects appeared who began to question the negatives of this style. They called for the search for a new style of contemporary architecture. In the period between 1945 and 1960, new movements appeared. The search began for architecture that respects individuals and the privacy of regions. The return to individual opinion and respect for traditions and localities has become an alternative to the global style. Some of these movements continued to search for a new style that brings contemporary architecture closer to pluralism and diversity in the field of creativity, which gave each building its distinctive characteristics that bring it closer to people's hearts [10].

Late modern architecture took the ideas and forms of modern architecture, but exaggerates to the point of extremes, in search of excellence and making the building more enjoyable and entertaining, making it closer to the feelings of the members of society. The pioneers of late modern architecture find it far from the public, as there is nothing to attract them towards it, and therefore it can be considered special. This modern style of exaggeration or extremism, to break out of boring monotony [20].

Structural philosophy became widespread during this period: which represents a vaguely materialistic, critical intellectual approach that believes that every human or literary phenomenon constitutes a structure Structuralist philosophy spread during this period: which represents a vague, materialistic, critical intellectual approach that believes that every human or literary phenomenon constitutes a structure that cannot be studied except

after analyzing it into its constituent elements. This is done without the interference of the analyst's own thoughts or beliefs. This movement arose and prevailed as a style in Moscow after the October Communist Revolution in 1917 and called for a new concept in which social justice prevailed. It is based on order, logic, construction, abstraction, and geometric formation. One of its most prominent pioneers is Ilya Golosov (1883-1945), designer of the Zyov Club building in 1926 in Moscow. In its first appearance, structuralism was concerned with all aspects of human knowledge and then crystallized in the field of linguistic research and literary criticism [21]. (Figure 4)

Figure 4. Ziov Club by architect Ilya Golsov, where abstraction and geometric order.
Source; [32]

It developed around the middle of the twentieth century as a reaction to CIAM or (International Congresses of Modern Architecture), functionalism – which was seen as ignoring population identity and urban forms. It was based on the principle that (every form of art is the result of general rules of language and composition). In the field of design, it provides tests in innovative structural systems. Innovation and creativity are always compatible with the constraints and conditions of the site (soil type, climate), and the wishes of the beneficiary [22].

One of its most famous pioneers is the architect Aldo van Eyck (1918-1999), who called for the necessity of abandoning functional architecture in favor of a return to humanism in architectural design (in addition to early modern architecture).

One of his most important works is the Orphanage in Amsterdam in 1960. This house, apart from being an orphanage, served as a platform for Eyck to present his ideas on post-war architecture. Eyck critiques this project, which is classified as the first huge construction project of his own design in post-war architecture [23]. It lacks the human element and in return seeks to reveal an urban vision different from the one that his predecessors used to present in CIAM, (Figure 5).

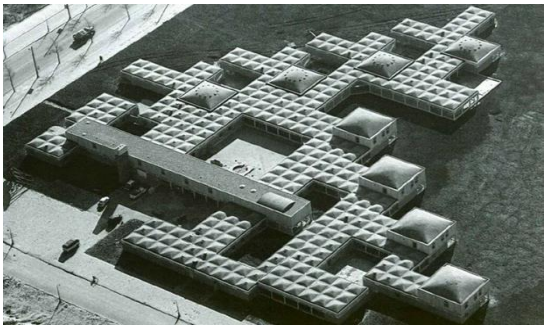

Figure 5. The Amsterdam Orphanage for Aldo van Eyck, which represents many points of interaction, becomes more like a small town that embraces orphans.
Source; [20]

6. The Spirit of the Post-modernism / (1970~1990):

The architecture of small post-modernism combined modern technology and theory with “traditional buildings” in order to communicate the people and interests of a minority. If the late-modern architecture is the development of the modern architecture itself, then the post-modern architecture is considered by critics to be a new style because it is completely separated from modern architecture. However, the architects who created this trend are modern and they work with the materials and methods of creating modern architecture. Some intellectual models known for post-modernism have appeared. It gave form to architectural theory, namely phenomenology, aesthetics, semiotic linguistic theory, structuralism, post-structuralism, deconstructionism, Marxism and feminism [10].

In the last few decades the cubistic, sober and undecorated modernist architecture has been regarded as boring, anonymous and frustrating people to live in, because their dwellings are devoid of any individual- character. Modernist house-building has even been blamed for the owing criminality of many modern cities in the Western world [23].

Frank Gehry (1929) is considered one of the most prominent architects influenced by this philosophy, shown in his design of Guggenheim Museum in Spain. The curves appear on the building randomly, according to him “The randomness of the curves is designed to reflect light”. And the museum consists of radically carved organic contours due to its location in the city coastal, (figure 6). It looks like a ship where titanium plates and reflective rays echo other forms of organic life [10].

Figure 6. The Guggenheim Museum in Spain and its organic forms that reflect the movement of water and fish scales.
Source; [25]

The dominance of one side of the dualism at the expense of the other began to emerge again, and in this period the idealistic philosophy was reflected in the architectural product. The word "idealism" is taken from "ideal," which means in the Greek language the image or idea. Lalande (1876-1963) defines it in his Philosophical Dictionary as "the philosophical trend which refers all of existence to thought in the broadest sense of this word. In other words, it is the doctrine that says that real things are nothing but our thoughts and that there is no reality except our thinking selves". As for the existence of things, it is based on their perception by this entity, and they have no reality beyond that. Idealism is a philosophical doctrine whose followers believe in the existence of general, fixed, and final ideas that are the essence and reality of the universe, and these ideas have created a general spirit [24].

George Berkeley (1685-1753) is considered to be an idealist as he mentioned that reality of a thing is the mind's perception of it, and what the mind does not perceive is nothingness. Immanuel Kant (1724-1804) was an idealist when he made mental categories a condition of knowledge. Hegel (1770-1831) was an idealist when he expressed that the truth of the universe as an absolute spirit that expresses itself in black existence. Idealism is a philosophical doctrine that includes a large part of (metaphysical) doctrines (post-nature or metaphysics), and it is a philosophical trend that searches for the issue of existence. Idealism in architecture particularly influenced deconstruction. It started in the 1980s. They believe in what they call "critical architecture theory." It is characterized by ideas of fragmentation and an interest in playing with ideas of surface or structure, nonlinearity, chaos and unpredictability. And the independence of the building and its elements (independence from people and neighborhoods, strong lines, bold curves, innovative formations) [12]. One of the most important works is the Alicia Museum in France. (figure 7).

Figure 7. Alesia Museum in France and merging it with nature through wooden sticks in the façade .
Source; [26]

7. Free will and Post Post-modernism/ (1990-?):

Post-modern architecture witnessed a torrent of criticism focused on ignoring the human dimension, the social aspect, and the communicative dimension, and focusing on the new culture and the growing influence of fashion. And when talking about the Post-Post Modernism dimension, we must address new technology and its relationship with architecture, especially virtual world technology, and the resulting new architectural trends that did not exist in the twentieth century [9].

With the development of technology, many challenges have emerged, such as rapid change as one of the main features that characterizes this era due to the major transformations in the field of knowledge and the field of technology. This change has led to problems, the most important of which is a social-behavioral adaptation to the requirements of change. The acceleration in change generates an ambiguous feeling, as Toffler (1928-2019) describes it as societies with advanced technology suffer from anxiety related to the acceleration in change. The accelerated acquisition of knowledge has fueled the engine of technology, which has led to an acceleration of change. But the most dangerous type of change is that the acceleration of the rate of change taking place in the world around us may destabilize our internal balance and modify the same approach that we follow in our lives. The acceleration outside us translates into an acceleration within us. The rapid change in architecture and industrial design in the twenty-first century makes it likely that a building or product may lag behind new technological developments before it is completed [25]. This also means the possibility of introducing a completely new direction, which makes the relationship between design theory and technology highly diverse.

The impact of technology on architecture has extended to the production of new vocabulary into the architectural language, such as lightness, transparency, radiance. or what can be described as weightlessness, immateriality, or the aesthetics of

flow or flexibility, and the movement of the elements of the shapes that make up the flowing architectural composition changes.

Contemporary technology has enabled greater freedom and the means of the architect in the third millennium to push design towards high displacement, whether in volumes, surfaces, or details. Displacement may include the tendency towards separating function from its familiar form, or aesthetic values, and by using new materials, especially nanomaterials [26].

In the early 21st century even High-Modernists like Eisenman (1932/) admitted that Modernism was at the end of its relevance. We no longer live in the industrial age of the past. The world has entered a new Industrial Revolution with intellectual automation, mass-customization and environmental awareness [27].

The most prominent product of post-postmodern architecture is the interactive membrane, which acts as a barrier connecting or separating spaces according to the needs and desires of the user of the space. Applications for interactive membranes can be diverse in scale and technology. For example, the Hyperbody team at Delft University designed a group of projects that condense this idea in its many aspects. This interactive membrane can include several continuous, connected parts that serve as space dividers, and at the same time as seats, display screens, or sources of light and sound, depending on the response that this dividing membrane makes, directly or indirectly, toward those inside the space formed by this membrane. These membranes can change various space specifications. From both sides of this separating membrane, note (figure 8), where it can provide many functional features if it is used on a small level, away from its primary role as an organizational space element. It can provide elements sitting, being a source of light, or being a source of direct or indirect means of communication [28].

Figure 8. shows the interacting membrane that can change its various spatial specifications from both sides of this separating membrane. Sources; [29]

It shows the role of science which seeks to reveal the truth and describe the universe and nature. And the role of architecture is to express the truth and seek expression and artistic creation which is limited to the limits of expression and creativity.

Hence, the need emerged to reset the multiple combinations through the emergence of a new classicism that returns the two sides of the dualities to their starting point.

8. Conclusion

We are now witnessing signs of reaching a new, fourth classical stage (in a pattern similar to the previous three classics) that attempts to restore balance and set the standard for the rapid changes that the world is witnessing in light of the tremendous technological leaps, in a way that supports what we previously assumed in the main hypothesis of the study. We note that in all four classics, patterns emerge starting from the stage of cognitive application (trial and error application of the external world), as shown in the third quadrant of the coordinates of Figure (10), passing through the stage of Theoretical learning from the outside world (the second quarter), then the stage of self-theoretical learning based on the mind (the first quarter) and ending with the stage of applying what the mind conceives and imagines (the second quarter). Therefore, architecture can take upon itself the leadership of innovation in the future and be highly influential in advanced technology, for example, through the return of confidence in the mind again with the emergence of the fourth classic in architecture and the attempt to benefit from the products of the imaginary and virtual world, such as metaverse architecture, which is completely architecturally designed and connected to the material (applied) world.

It seems that modernism's stages are twisting successively along the axis of classicism by time. The resultant pattern represents the global, common, and dominant humans' mood. It is similar to the patterns of the three previous classicism, see (figure 9).

While early modernism was concerned with practicing the world, late modernism focused on finding timeless principles as an objective approach to reaching the truth in the world around. Also, post-modernism tried to revive ancient thoughts and products versus the endeavor of post post-modernism to apply and experience different imaginary and virtual realms.

Hence, early modern movements in architecture were busy solving real-life's problems. Later, the transition toward late modernism pushed architects to seek objective criteria, guidelines, and

principles for understanding and designing. After that, post-modernism made a noticeable shift toward the past. So, architecture tried to imitate old products by copying or reviving them. Lastly, the architecture of post post-modernism paved the way ahead to explore other unknown and endless worlds that challenge, complicate, and even threaten our own real world. It seems that we approach saturated limits and critical thresholds that push us toward a new resetting classicism to start up again, (figure 10).again, (figure 7).

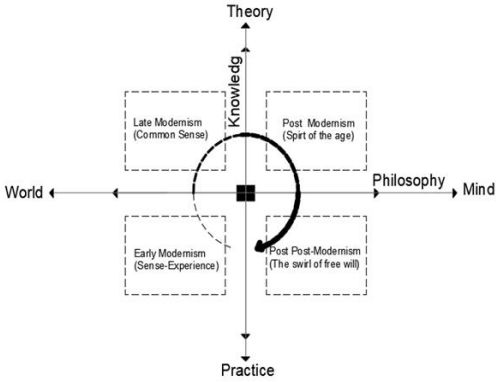

Figure 9. A top-view spiral pattern of western-modernism.Sources; [Researcher]

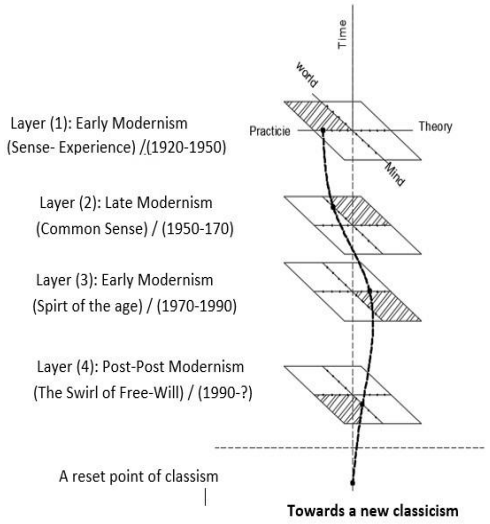

Figure 10. The Resultant, common and universal, (3D) pattern of modern western architectural mood over time shows the tendency towards a new, the four classicism. Sources; [Researcher].

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