MONDRIAN: NEO-PLASTICISM AND ITS INFLUENCES IN ARCHITECTURE

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The art of building has only got to make tangible what the art of painting has demonstrated abstractly in the New Representation. Architects and engineers are the people who will have to establish in future the harmonious proportions between ourselves and our surroundings. What are our actual surroundings today?..... We are living in somebody else's houses with somebody else's furniture, carpets, china, painting! (De Stijl, III, p.58)

So long as there is no entirely new art of building, it is up to the art of painting to perform that in which the art of building (such as is generally apparent) has failed: i.e., to represent purely well-balanced proportions or, in other words, to be abstractly realistic representation. The abstractly realistic art of painting is therefore meanwhile the life-saving substitute. (De Stijl, II, p.135)

INTRODUCTION

Music sometimes gives us the sense of absolute, so music represents something beyond itself, it represents the universe. The complexity of the universe sometimes makes it incomprehensible for us. So in order to make it understandable we have to reduce its complexity to a minimum or make it abstract. It is true also that the more abstract it is in its relation to the actual environment of the source of sound, the more surely will the listener be persuaded into a proper state of receptivity (Arnheim, 1932, 149-150).

Mondrian's Neo-Plasticism principle was no different. He was against the complexity of the world, and tried to reduce it by constructive means in his plastic art. He thought of the complexity of art in his early time, which is due to the fact that different degrees of its evolution are present at one and the same time. As he felt that, by means of pure science we can achieve practical results for humanity, we also by means of pure art in more abstract ways could achieve similar contributions to our life. Hence,
There are more or less hidden in the reality which surrounds us and do not change. Not only science, but art also shows us that reality, at first incomprehensible, gradually reveals itself, by the mutual relations that are inherent in things. Pure science and pure art, disinterested and free, can lead the advance in the recognition of the laws which are based on these relationships (Mondrian, 1945, 52).

Mondrian felt that in art, content and form have been over-emphasized or neglected because what he calls 'their inseparable unity' has not been clearly realized, and in order to establish unity in art, balance between content and form must be created. Through that balance he was striving for equilibrium and simplicity towards universal beauty. He was referring to equilibrium in its dynamic means through a non-figurative representation in art, hence,

Then we shall understand that the equilibrium of which we speak in non-figurative art is not without movement of action but is on the contrary a continual movement (Mondrian, 1945, 57).

Through the law of dynamic equilibrium, other laws may be depicted which represent the underlying law of nature, not their accidental features:

If the execution of the work is to be the direct expression of the universal, then it may not be anything else than universal, i.e., abstract (De Stijl, I, p.5).

An example of such laws is the one concerning the reaction of position and dimension. Since all the relations of position except the rectangular one lack stability, and often in most art representations the rectangular relationship expresses itself in an indeterminate manner, there is a need to destroy this stability to establish it in a determinate manner.

Hence through the clarity and simplicity of neutral forms, non-figurative art has made the rectangular relation more and more determinate until finally, it has established it through free lines which intersect and appear to form rectangles (Mondrian, 1945, 57).

That is the object of Mondrian's art.

Looking at late Mondrian painting [Figure 1], we can see the important change in his works. The focal point in his previous compositions before 1917 [Figure 2] are no longer there; it occupies the whole surface and even seems to go beyond it. The grid of straight black lines intersecting at right angles, the use of primary colors (red, yellow, and blue) and the non-colors (white, gray and black) were integrated in an asymmetrical rhythm to produce harmony and balance.

For a long time he was exploring the theme of horizontal and vertical, which proved that this theme has a reality of its own, and that it was a universal principle, a source of both life and language. This principle could be implied not only in painting but also in other media, i.e., architecture.

For those who regarded his painting as a bunch of lines and colors or used as wall decorations, they should be reminded that his painting is definitely autonomous and capable of standing on its own. His painting represents the modern movement, artists who tried to emancipate themselves from the gravity of the earth by distributing visual weight equally in the whole surface. Looking at his late painting we sense that there is no more weight at the bottom than at the top, but if we turn the painting upside down, we see it is heavier in the top (Arnheim, 1974, 30-31). This is one of the things that makes his painting fascinating. Also for those who claimed that nothing was easier than to fake a Mondrian, Sandberg's experiment of the comparison between the original and the imitation
proved that it is very difficult to fake a Mondrian. Those, who understand how two black lines intersect or how the many layered color areas taper off at right angles, know what an eminently craftsmanlike, individual, visual energy characterized his works (Seuphor, 1972, 12).

The concept of equivalence of plastic means, implied a sense of visual weights of individual primary hues and varying their amounts to balance the non-colors (white, black and grays). The amount required of the yellow spectrum, for example, would naturally have to be greater. It is this equilibrium of disparate elements with its great sense of strength and clarity that marks a genuine Mondrian work. Today artists and architects fail to understand the color aspect of his works. They only capture the geometrical forms and relationships but fail in their use of colors because they look at colors as interchangeable. That way, architects and designers rely on their selection from a book of paint chips, which is a personal preference and not the spatial function or visual and psychological implications of color (Bliss, 1982, 51-52). Today most architects' problem is that they tend to think of color as painted surfaces.

Mondrian's contribution to architecture was not only in his sense of color, but also in his sense of proportions. He was by no means less important than the great Le Corbusier in his Modulor principle, which for the latter was a universal instrument to obtain beauty and rationality in the proportion of everything produced by man.

NEO-PLASTICISM

Mondrian's principle of Neo-Plasticism always has been related to his association with Dr. Schoemaekers, Salomon Slijper, and Bart der Leek. The first helped him in shaping his theoretical writing, the second in his spiritual and intellectual development, and the latter in his evolution as a painter (Wijsenbeek, 1968, 91-92). It is evident that Mondrian borrowed some of Schoemaekers' terminology, especially the key term, *Nieuwe Beelding*, which can be translated as 'new plastics' or 'neo-plasticism' (Seuphor, 1972, 134). In the following paragraphs is an illustration of Mondrian's principles of Neo-Plasticism as it is transcribed from his handwritten original (Seuphor, 1972, 166-168):

I. General Principles of Neo-Plasticism.

1. The plastic medium should be the flat plane or the rectangular prism in primary colors (red, blue and yellow) and in non-color (white, black, and gray). In architecture, empty space counts as non-color. The material can count as color.

2. There must be an equivalence of plastic means. Different in size and color they should nevertheless have equal value. In general, equilibrium involves a large uncolored surface or any empty space, and a rather small colored surface or filled with matter.

3. The duality opposing elements in the plastic medium is also required in the composition.

4. Abiding equilibrium is achieved through opposition and is expressed by the straight line (limit of the plastic means) in its principal opposition, i.e., the right angle.

5. The equilibrium that neutralizes and annihilates the plastic means is achieved through the proportions within which the plastic means are placed, and which create the living rhythm.

6. All symmetry shall be excluded.
II. Neo-Plasticism and Form.

In nature, relations are veiled by matter appearing as form, color, or in its natural properties. This 'morphoplasticism' was unconsciously followed in the past by all the arts. Thus in the past, art was 'after nature'. For centuries painting plastically expressed relations through natural form and color until it came in our day to the plasticism of relations alone. For centuries, painters composed by means of natural form and color; at present the composition itself is the plastic expression, the image.

III. Neo-Plasticism and Color.

Despite its 'interiorized' plastic expression, Neo-Plasticism still is painting. Its means of expression is pure and definite color, in planes which remain equivalent to the surface of the picture; in other words, color remains flat on a flat surface. It is not weakened by having to follow the modulations of the form; thus it is stronger than in morphoplasticism. Color finds its equivalent opposition in non-color, that is, in white, black and gray.

IV. Psychological and Social Consequences of Neo-Plasticism.

Balance through the equivalence of nature and mind, of that which is individual and that which is universal, of the feminine and the masculine- this general principle of Neo-Plasticism can be achieved not only in plastic art, but also in man and society. In society the equivalence of what relates to matter and of what relates to mind can create a harmony beyond anything hitherto known.

By interiorization of what is known as matter, and by the externalization of what is known as mind (until now, the two have been kept pretty far apart!) mind-matter becomes a unity.

Neo-Plasticism demonstrates the exact order. It stands for equity, because the equivalence of the plastic means in the composition demonstrates that it is possible for each, despite differences, to have the same value as the others.

Equilibrium, through a contrasting and neutralizing opposition, annihilates individuals as particular personalities and thus creates the future society as a real unity.

DE STIJL

After he published an article discussing Mondrian's painting with great admiration in 1915, Theo van Doesburg realized that he and Mondrian were travelling in the same direction, that is to produce compositions based exclusively on the equilibrium of pure plastics. They decided with architect J.J.P. Oud, who had similar views, to publish De Stijl. In addition to the three founders of De Stijl, others joined in the movement, like architects G.J. Rietveld, C. van Eesteren, and painter Vilmos Huszár, the Poet Antony Kok and the sculptor Georges Vantongerloo (Wijsenbeek, 1968, 92).

In October 1917 the first issue of De Stijl appeared, with Mondrian's essay, 'New Plasticism in Painting' (Seuphor, 1972, 137). After then, the influence of this movement spread, especially in architecture. In the following paragraphs I will be describing that influence, but we should be reminded that when we are using the term De Stijl we are not ruling out Mondrian's principle of Neo-Plasticism because he and Theo van Doesburg, considered the founders of De Stijl, remained faithful to the original idea, from the time it started until Mondrian died in New York in 1944 (Seuphor, 1976, 28).
INFLUENCES OF NEO-PLASTICISM

Frank Lloyd Wright:

Both Peter Blake and Vincent Scully claimed that Mondrian and De Stijl were influenced by Wright's works. The former suggested that Wright in his interiors of Unity Temple (Figure 3) laid the foundation for the De Stijl movement. He also claimed that they took the surface patterns of the building and used them to destroy the architectural value (Blake, 1960, 310). Yet both of them admitted the influences of the International Style on Wright's Kaufmann House (Falling Water) (Figure 4). Giedion (1973, 413) also suggested the frequent uses of the same elements of the De Stijl by Wright. For the sake of the argument whether Mondrian and De Stijl had any influences on Wright's works, we should examine the following facts:

1) There is no doubt that the International Style of the twenties and thirties got their inspiration from Mondrian's principle of the crossing lines, his tensely balanced proportions, and his planes of primary color (Scully, 1960, 23).

2) One could compare Falling Water of Wright, 1936-1937, and Lowell House, 1929-30 by Richard Neutra, who was one of the International Style architects (Figure 5). One could sense that Wright may have been influenced by Neutra's work.

3) By looking at the ways Falling Water planes grouped and their intersections, and how they limited themselves to the rectangular shapes, one could have the sense of a Mondrian painting on them or any of the De Stijl projects.

4) Finally, it is possible that Mondrian developed his idea about abstract formulation, without any influence from Wright's work; especially if we examine the former works, we see him explaining for most of his life the theme of the horizontal-vertical. His attachment to single theme sharpened his attention, and preserved him from being diverted as it was constantly evolving and moving towards the ideal perfection.
Mies van der Rohe:

The emphasis on complete abstractions, consisting of flat patterns and coloured rectangles in Mondrian's paintings has its influences on architecture by providing new facade and planning patterns. The so-called 'Mondrianesque Inspiration' can be noticeable in some of Mies's works (Collins, 1965, 279-280) [1]. The plan of Brick Country House, 1923 and the Country House for a Bachelor by Mies is clearly reminiscent of Mondrian's early painting (Figures 6-9).

Again, Blake (1966), did not rule out the possibility that Mies may have been influenced by the De Stijl paintings. Even though Mies rejected the De Stijl formalism, when he represented his project, they suggested strong influences of the graphic means of De Stijl. He himself admitted that Van Doesburg never painted as beautiful a composition as a Barcelona plan (Figures 10-11) (Blake, 1966, 33).

In both the Barcelona and the Brick Country House, we could see the free walls that separated the spaces asymmetrically which suggested the influences of the De Stijl painting [2].

Bauhaus and International Style:

The numerous discussions with Van Doesburg and Mondrian in 1916, as Joedicke (1965, 1-2) proposed, may have had strong impact on architect J.J.P. Oud, a member of De Stijl at that time [3]. It may have shaped his artistic intention around the period 1917-19. One can see the influence of the Neo-Plasticism in his work, Superintendent's Office, 1923 (Figure 12); and the last work Convention Center, 1957-61, with the International Style. In both projects and others, the vertical and the horizontal elements with the primary colors were prominent. One should not deny his influence in both Bauhaus and the International Style, where the latter was attracted so much by his works, where they did not bother to take a closer look before De Stijl (Stamm, 1978, 8).

As Jaffe points out the impact of De Stijl on the Bauhaus was stronger than the reverse. Oud's connection with the Weimar Bauhaus resulted in the formulation of the logical functionalism idea which derived from the De Stijl principles (Jaffe, 1967, 26-27).
Figure 12. Superintendent’s Office by J.J.P. Oud, 1923 (Polano, 1989, 107).

Figure 13. ‘Red and Blue Chair’ by Rietveld, 1917 (Moszynska, 1980, 86).

1. Drexler (1960, 23) also argues that the Group of Three Court Houses by Mies suggests a characteristic of Mondrian works in them, especially the interior free walls which reflect the early style of Mondrian.

2. According to Frampton (1980, 164) Alfred Barr also suggests the influences of De Stijl on Mies’s Brick Country House. The load-bearing walls were disposed in pinwheel-fashion like the clustering elements of Van Doesburg’s painting of 1917, Rhythms of a Russian Dance.

3. Sergio Polano (1989, 100-115) also suggests the theorization efforts by some architects like J.J.P. Oud and Van Doesburg who experimented with solutions of color in the new monumental art. The Superintendent’s Office, 1923 by Oud is clearly reminiscent of Van Doesburg works with light colors.

Part of the De Stijl aesthetics is the joining of vertical and horizontal elements by-passing each other in Gerrit Rietveld’s famous chair (Figure 13). This idea was introduced to architecture as a structural device. At the Bauhaus this device was modified and revolutionized along with other ideas drawn from De Stijl (Drexler, 1966, 17-18). The bypassing device was also employed by Mies in his later works, or what was called Miesian Style.

Mondrian’s work also has a great interest at Weimar Bauhaus, with the connection of Van Doesburg to that movement, Mondrian’s essay Neue Gestaltung was published by the Bauhaus in their book in 1925 (Wijsenbeek, 1986, 120).

Modern and Post-Modern Architecture:

The influences of De Stijl in our modern architecture and the late post-modern architecture, cannot be denied. For the sake of argument here, the great Habitat of Moshe Safdie (Figure 14) can be compared with the Paris models (Figure 15) which Van Doesburg and Van Eesteren developed in 1923. Another project which also has some of the De Stijl principle of asymmetry, is the entrance gate of Garagia Rotunda, by Charles Jencks, best known for his book The Language of Post-Modern Architecture (Figure 16). Finally, the sophisticated skins of irregular grid of black mullion by Cesar Pelli in the expansion of the museum of Modern Art building (MOMA), clearly reflect Pelli’s admiration of Mondrian. The so called Mondrianesque Skin is an example of historical reference and a symbol of adjoining museum’s purpose (Figures 17-18) (Pastier, 1981, 81).
Figure 16. Garagia Rotunda by Jencks, 1977 (Jencks, 1977, 120).

Figure 17. The Museum of Modern Art Tower (MOMA) by Pelli, 1977 (Pastier, 1981, 80).

Figure 18. The 'Mondrianesque Skin' of MOMA Tower by Pelli, 1977 (Pastier, 1981, 80).

Figure 19. 'Schroder House' by Rietveld, 1924 (Banham, 1975, 66).

Figure 20. 'Victory Boogie-Woogie' by Mondrian, 1944 (Moszynska, 1990, 143).
It is fair to say that Mondrian, unlike the two famous Dutch artists, Jan Vermeer and Pieter de Hooch who discovered their principle about the morning and evening accidentally, was a founder of his principle and remained faithful to one theme and evolved it towards an ideal perfection without diversion [4]. It is true that in his later years he may have attempted to eliminate some of his abstract expressions in his painting or the ‘realistic’ difference between solid visual object lines as Arnheim (1977, 84) put it. But, he maintained the idea of horizontal and vertical lines with the right angles.

His principle of Neo-Plasticism had great influences on fellow members at De Stijl, especially architects Gerrit Rietveld and Van Doesburg. Such influences led Rietveld to contribute a great work to modern architecture by means of plasticity, that is Schroder House in Utrecht, 1924, which was once called ‘a cardboard Mondrian’ (Banham, 1975, 68) (Figure 19). By the same token we could say it is through the contribution of architects, and other artists and editors of De Stijl, that Mondrian’s principles found their way into architecture, hence especially to Van Doesburg, who founded De Stijl to communicate Mondrian’s idea (Seuφhor, 1976, 28).

Mondrian’s vision about the concept of architecture of planes possessing a multi-sided plasticity in accordance with the theory of relativity, made him attack the concept of architecture as a form of mass. This idea was led by Van Doesburg toward a functional style of architecture is Germany (Balju, 1974, 48). If we analyze both views we could say that Mondrian was defending his idea as an artist as well as a painter, while Van Doesburg as an architect was looking for a new form of expression of life, art and technology. What we are implying here is that Van Doesburg was closer to reality in architecture than Mondrian was. The former in his work the Paris Models with C. Van Eesteren, shows a deeper sense of architectural reality than one may achieve by restricting oneself to the flat plane of canvas as Mondrian did. To make it more clear, artists, with respect to Mondrian, might have complete freedom, some objectivity through constructing lines, planes, and color weight in their canvas to reach the ultimate goal which is universal beauty. Mondrian himself admitted that architecture is bounded with special needs, and is not free like sculpture. He wrote (in his An Essay in Dialogue), ‘Architecture remains a construction in terms of space. It has its practical requirements. Sculpture is free’ [5]. Here, we should include the medium of architecture with other media that Arnheim (1974, 160) suggested under his ‘definite ceiling’, because although architecture has less freedom than others, it is connected to the reality of the activity of human life and human need.

There is no doubt that Mondrian painted only because he believed that painting could be improved. If we review all his works, we will find that each work had an advance over the previous one. Through his starting point from Van Gogh, Cubism, Neo-Plasticism, and finally to Boogie-Woogie painting (Figure 20) we can sense the marvelous adventure. The influence of New York high-rise architecture on his Boogie-Woogie works suggested the great struggle for his artistic life to search for the absolute, the universal beauty. His contribution to the architecture of our time cannot be denied, and can be described best by Michel Seuφhor:

Mondrian’s sense of proportion is literally the aesthetic yardstick for all the structures produced by the building book of the fifties-office building, schools, factories, blocks of apartment houses, one-family houses, weekend houses (Seuφhor, 1976, 15).
Finally, we should not forget his contribution to architecture as a theorist as well as a writer. He is the one who said some sixty years ago:

We live like strangers in someone else’s house, with furniture, rugs, utensils and pictures that are not our own! ... If we take a walk, the streets are not ours either! (Seuphor, 1972, 330-331).

Today one should remember his deeper sense about our problems in architecture. Those of today who are trying to tell the architect to be aware of the user’s problems and try to suit the need of the user in the building and not of themselves, (and others like John Turner and Robert Fichter, who call for self-help housing and use and community involvement in the housing processes) are no different in their ideas from Mondrian’s.

REFERENCES


MONDRIAN:
NEO-PLASTISİZM VE MİMARLIĞA ETKİLERİ

ÖZET

Mondrian'ın Neo-Plastisizm ilkesi, dünyanın karmaşıklığı karşısında daha soyut bir sanatın, bilim gibi, insan hayatına pratik katkıları olabileceğine görüşünü dayanmaktadır. Mondrian, sanatta içerik ve biçimin ayrılmaz bütünlüğünün ele edilmesi için, aralarında denge ve bu denge yoluya bir dinlilik ve yalinliğin sağladığı evrensel güzellikin peşinde olmuştur.

Doğa yassını temsil eden tüm yasalar, dinamik dinlilik yasasına dayanmaktadır. Resimdeki dikdörtgen ilisinin durağanlığının bozulması Mondrian'ın sanatında bir amaç olmuştur.


Sanatçının geçmişte ilişkilere doğal biçim ve renklerle plastik ifade vermesi (morfoplastizm) yerini ilişkilerin plastik ifadelerine bırakmıştır (neo-plastizm). Renk resim düzlemi yüzeyine eşdeğer bir konumda ele alınmıştır; düz yüzeyde düz renk biçimini yüzey değişmelerinden bağımsızlaştırılmıştır. Doğa (veya madde) ve aklın eşdeğerliği anlayışından çıkan bir denge oluşturulmuştur. Genel ilke yalanız plastik sanatlarda değil, insan ve toplum için de sağlanabilecektir.


Mondrian’ın ilkelerinin mimarlığa etkileri De Stijl akımını savunanlar katkıları ile olmuştur. Özellikle Van Doesburg mimarlığın bir kütü bahsi olması kavramına çok yönlü plastik olan düzlemeler mimarlığın kırgını oluşturmuştur. Mondrian, Neo-Plastizm düşününcesini resim sanatının ilerlemesi için bir sanatçı ve ressam olarak, Doesburg ise, yaşam, sanat ve teknolojinin yeni bir ifade biçimini oluşturmaya çalışan bir mimar olarak savunmuşlardır.

Mondrian’ın orantı anlayışı 1950’lerde üretilen mimari için sürekli bir başvuru kaynağı olmuştur. Bir yazar ve teorisyen olarak mimarlığa katkıda önemlidir.