

PalArch's Journal of Archaeology of Egypt / Egyptology

THE EMERGENCE OF FORM IN PAINTING AND IT'S IMPACT IN ARCHITECTURE

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Ali Akbar Akbari: The Emergence of Form in Painting and It's Impact in Architecture -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(15), ISSN 1567-214x

Keywords: architecture, abstract-oriented, impressionism, cubism, De Stijl, Formalism

ABSTRACT

Painting was not an imitation from natural elements, rather the painter brought his recalling regarding the nature to his canvas through his inner feelings. Abstract art, which was quite a formalistic manner, was a mean for achieving this artist's desire. Abstract art in paintings has begun from expressionistic tendencies of the 18th century in Europe. William Turner is considered the initiator of this movement. Following this abstractionism path in painting, Impressionism and Cubism can be noted and Mondrian can be named as the accomplisher of this movement. Mondriani was the creator of Neoplastism and was effective in the De Stijl movement. The main objective of this study was to evaluate the evolution of formalism in Europe painting from 18 to 20 century. question of this research was that "what is the impact of the formalism process in painting on distinguished works of modern architecture in the early 20th century".

INTRODUCTION

Abstract art, with all various aims and loyalty to the different states of human nature, is a mean to express the new views of the artist. This art, by providing new means of expression, enables the free mind of the painter, to reset the visual concept, and achieve a new order of reality. Painter, searches for the hidden soul of the objects and the truth hidden from their appearance to explore his intricacies of the unconscious, and by reaching a pure geometric form, expresses the internal and purest concepts. From the perspective of an abstract painter, forms that are in any combination, are the simplest shapes in the reduction of visual fields. Because the more a form is simple and organized, the more easier it is observed and comprehended, in this way, he finds the pure geometry value in the abstract image.

Artistic developments of the eighteenth century to the twenty in Europe are affected by impartial, objective and rational attitudes of classical-oriented and realists, on the one hand, and emotional, subjective and irrational attitudes of romanticism and symbolist, on the other. This opposition is also clearly evident in the early modern art: Manet, Degas,

Monet, Seurat Vszan are representatives of the first approach and Van Gogh, Gauguin, Munch and Ansouri are representatives of the second approach. But, while the artists of the nineteenth century, generally, tend to polarize this contrast, the modernist artists seek to combine the two approaches and are working to give both issues _ the real, true and correct on the one hand, and the essence and the true meaning of the universe on the other hand _ a unique and unitary answer. This effort concerns the new paradigm: the belief in the inherent law and the fundamental unity of all existence require the development of an inclusive Henry's law, which provide the sensual and the spiritual unity, the real and the ideal, in a homogeneous form (Bokola, 2008, p. 17).

The source of modern art can be studied from different angles. However, it seems that the development of abstract art in the early twentieth century is one of the most important origins. Undoubtedly, the abstract art is the most important achievement of the modern art. The significance of this success is certainly not less than the Industrial Revolution. The abstract art clearly promises the dawn of a new era in the realm of aesthetics (Bani Masoud, 2010, p. 267).

Abstract art actually is quite a formalistic manner that emerged from within the expressionist tendencies, and became the purest modernist (Ibid.).

The most important issue of this research was investigating the effect of abstract art evolution in painting and the movement toward an entirely formalistic manner, and the use of this method in the architectural works in modern style. The evolution began in the paintings of William Turner, nature-oriented painter of the eighteenth century and continued to Mondrian of the twentieth century.

This research necessity was specifying the form of abstract art as the source of modern art in painters' works and showing abstract painters' trends in early twentieth-century toward the occult sciences.

RESEARCH BACKGROUND

Previous researches related to this topic can be divided into two categories:

1. The books that are related to the spiritual evolution of abstract art in paintings from 18-20 century Europe:

- Books and encyclopedias about art history, as well as books, such as art history of Ernst Gambryj, Austria historian as well as art encyclopedia (painting, sculpture and graphic art) and Royin Pakbaz work.

- Resources that are in the case of modernist art, such as the history of modern art: painting, sculpture and architecture in the twentieth century for Arnason and modernism art of Sandra Bokula.

2. The books that are related to the analysis of modern architecture special works:

- Modern architectural book from 1900 works of William J.R. Kertis, in 3 parts and 24 chapters. Part I: Foundation of Modern Architecture. The second part: the crystallization of modern architecture between the two world wars. Part III: transformation and expansion of modern architecture after 1940.

- The book "twenty buildings that every architect should know" by Simon Unwin, who has reviewed and analyzed the twenty outstanding works of architectures in it.

THEORETICAL FRAMEWORK OF THE ARTICLE

Traces of the influence of abstract paintings of Mondrian and Malevich or Vendsburg in the works of modern architecture can be observed in other studies or books related to the history of modern architecture. However, was this influence without any introductions or other related topics? The theoretical framework of this paper started with the fundamental question for the researchers. A transformation happened following the Renaissance painting, by William Turner and this promise was a new movement in the abstract painting. Formalism movement process in the works of these painters is a part of the theoretical structure of this study, which continues with examining the painter and his style in painting, and the completing of this movement was desired to Mondrian. Mondrian influence, as a supplement to the path of religious- mystical movements of his career and the condition he has lived in it, has been brought in the theoretical structure of this paper. This formalism movement to the architecture was done by the movement of De Stijl and Mondrian. In the final part of the research, we have reviewed the desired formalism in special works of modern architecture of the 20th century and conclusions about the effectiveness of these works have been extracted with formalism movement in paintings' works.

Mondrian was the accomplisher of the emergence of form and pure color on canvas painting that could extend this artistic approach in painting to architecture. In addition, the result of it was the works like Schroeder house that was completely surrounded in the form and structure of the desired artistic movement. Other important works of modern architecture were affected by the formalism of paintings from the 18th century to 20 Europe, to the Barcelona Pavilion and Fallingwater (Figure 1).

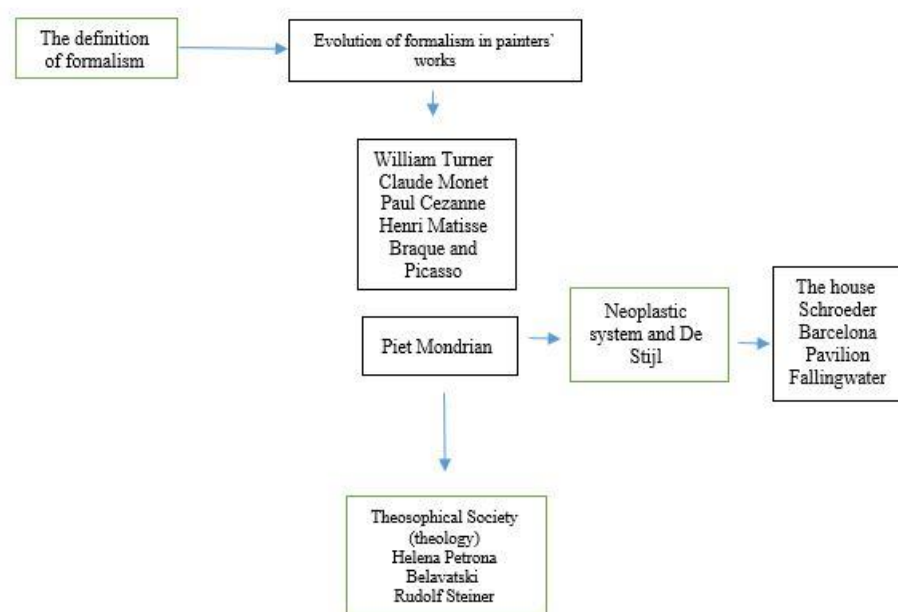


Figure 1. The Diagram of theoretical framework.

ABSTRACTIONISM AND FORMALISM

Abstractionism is an embodying art with the fundamental and general characteristics of organisms and objects as well as ignoring visual effects and specific details of each of them. Abstractionism is a modern manner that has encompassed the art world from 1910 to the present, and its aim is to create the works of imitation, representing the evident world. This movement (also called the art of representation, and in the advanced process it is also known as a non-object art) is based on the use of art elements of line, surface, volume, color, space, texture, to create a work that is a new visual experience in terms of each observer (Saba, 2005, p. 232).

Formalism is an action or doctrine that is emphasized in the form or formal structure. The term was common from 1920 with the group research from Russian writers, including Victor Shelosky, about the characteristics of the stylistic and formal structure of literary works. They were called formalists, because simply they have studied the form. Russian formalists have considered the literature-and in particular poem as special language and contrary to the common language and have limited the literary criticism in the same literary language framework. According to them, any attempt to analyze the content of literary work will force the critic into areas of non-literary, for example, psychology or sociology (Pakbaz, 1999, p. 343).

In the visual arts, unlike literature, the term does not have a principle-based application and so removing the subject, any misrepresentation, or abstract in art is carelessly considered as "formalism". In this regard, the following definition can be proposed: formalism is the use of contracts that only clear a formal look of a work (while these contracts were originally created to provide certain content). This special emphasis on form- without paying attention to the content-

can be found both in the abstract works and naturalism works (Ibid, p. 343).

18th-20th century painters in Europe

- **Turner: A representation of nature, beyond mere illustration**

William Turner (English painter 1775-1851), because of his innovations, is considered as one of the most important European scenics. In addition to the sea and scenic natural landscapes, he has also painted historical themes, and in these curtains, his romantic tendency becomes more obvious (Pakbaz, 1999, p. 161).

The last stage of his artistic development (1830-1848) was the follow-up searches in the world of light and color. In the works of this period, the subject became unimportant against color composition. He was seeking a visual equivalent for non-visual set of emotions. Stormic rotation of the brush, bright colors and abstract shapes reveal the poetic theme of his paintings, and so, the descriptive allusions reduce to the secondary factors (eg Blizzard, 1842). His semi-abstract works are called "painted fumes". Turner's attention to the effects of light, affected later Impressionist painters- especially Monet and Pissarro that saw his works in 1870 in London. Perhaps, it can be said that, his works in terms of passion, heat and technical freedom exceed from impressionism to be related to expressionism in the twentieth century (Ibid, 163).



Figure 2. Blizzard (1842) (www.william-turner.org).

Turner's passionate and romantic representations of nature can be considered a form of escape from reality. However, purely painterly behavior, the use of rhythm, form, light and color to emotions in nature and the forces give improvisation a special impromptu that is definitely beyond mere illustration. Turner's paintings do not carry the illusion of an accident; they have been an accident. His paintings give the visualization idea that does not announce it. In this respect, Turner goes beyond the boundaries of the idealism of his contemporaries, like Delacroix, and is placed in the row of the great pioneers of modernism (Bokola, 1998, p. 78).

- **Claude Monet, the Impressionist and concerned light**

The term Impressionism was a Louis Laurie achievement, an unkind critic of the journal "commotion" that has used the appropriate label inspired by one of Claude Monet's paintings about the experience "unconventional" in the Nadar Gallery, the famous photographer. As the painting was as a net light blue infiltrated of red-pink rising sun. Colors` reflection in the water was representative of short and sparse strokes of the brush. Main impressionist - Monet, Auguste Renoir, Alfred Sisleh, as well as several Paul Cézanne and Pissarro- have not much interest in scientific ideas regarding light and color and their attention had been more on the simple experience, a nature that was drowned in sun-rich and glorious or a nature in the eternal and mysterious light in the morning or evening (Arnason, 2004, p. 29).



Figure 3. Receive from sunrise, Claude Monet (www.william-turner.org).

The time had come that painting is no longer merely, or even primarily, an imitation of the natural elements. Monet in Argenteuil Bridge has ordered all his elements, in a detailed network. He has blocked the background with horizontal mass of trees and bridge buildings. Brush strokes are temporary and most of the water level may induce the impact of limited and low depth, and background has a state of colored areas, which are all parallel to the surface of the image. In this work, Impressionism can be taken into account as the ultimate refinement of visual realism, namely the description of visual reality, but not so simple that can be an imposing appearance of the natural objects, but as an endless metaphor of sunshine and shadow, reflection of water, and the role of clouds moving across the sky (Ibid, p. 30).

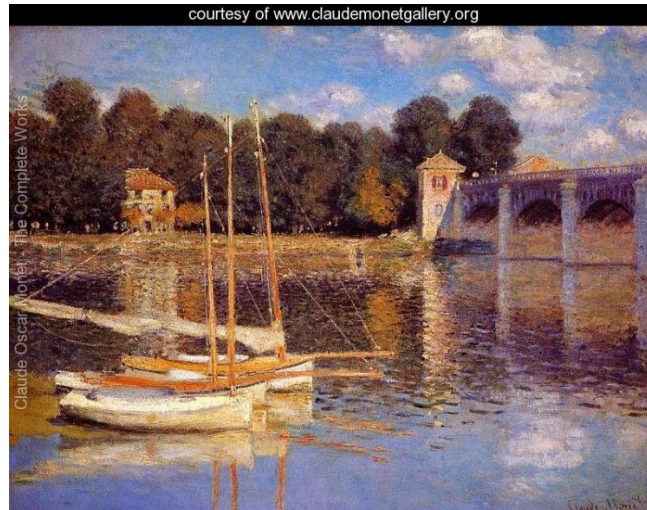


Figure 4. Receive from sunrise, Claude Monet (www.william-turner.org).

In Monet paintings, nature loses its objective nature and turns into the flood of sensory effects. Painterly rendering of the visual experience is the starting point of impressionism (Bokola, 2008, p. 108).

In impressionism, material qualities of painting is decayed and has become a mere "impression" (Ibid.). Impressionists use pure colors in the firm and dense layer (undiluted), composed of numerous tiny and uniform pen strokes, so that any pen stroke makes a unified single color. The interplay of these innumerable elements of color with the same size causes the vibration of paintings and creates illuminated spaces rich of a color that is the character of Impressionist art (Bokola, 1998, p. 109). Impressionist teaches carol painting, and makes the painter a musician. Adding the music dimension to painting - as "the liberation of color" - with no doubt is the most important achievement of impressionism (Ibid, p. 111).

Impressionists are claiming that an independent identity of painting was created as an object that has its value, with its own structure and rules apart from what can have as the depth of view or imitation of man and nature. So, finally, the impressionist can be considered as an ending point of a realist tradition in deep representative of Renaissance and the important beginning of the discovery in the twentieth century of abstract paintings and Cubism`s amazing color modes (Arnason, 2004, p. 31).

- **Paul Cézanne and priority of combination**

Cézanne's art is the art of composition. His insight about the unity of the image has a deep and lasting influence on the concept of modern art (Bokola, 2008, p. 115). In order to emphasize on the flatness of the picture, Cezanne put aside the classical single-point linear perspective, created depth in his paintings through the layers of overlapping, and intertwined with it. He, instead of reducing any surface into complementary colors and any line into single stroke pens like the Impressionists, converted the objects to the same colored spheres that were limited with clear boundary lines or darker or brighter neighboring levels. He, unlike the Impressionists, has emphasized on the material

density and strength of the evident reality and has cleared the essentially cubic structure of its components (Ibid, 117).



Figure 5. Fruit Basket (1895) Paul Cezanne (www.william-turner.org).

Cezanne extends finely brush strokes of the Impressionists, and specifies the vertical, horizontal and diagonal directions. His brush strokes become regular patterns or energy fields due to the effect of parallel layers of paint, frequent and tight together and make different shades of color and contrast in conjunction with each other, which are woven together (Schmidt, 1976, p. 90).

- **Henri Matisse**

Henri Matisse (a French painter, body builder, designer and printer, 1869-1954), because of his innovation, and his influence on contemporaries, is one of the most important artists of the twentieth century. The historical significance of his discoveries in the field of pure color can be considered in the form of cubism in the liberation of form from the shackles of objective representation (Pakbaz, 1999, pp. 494-495).

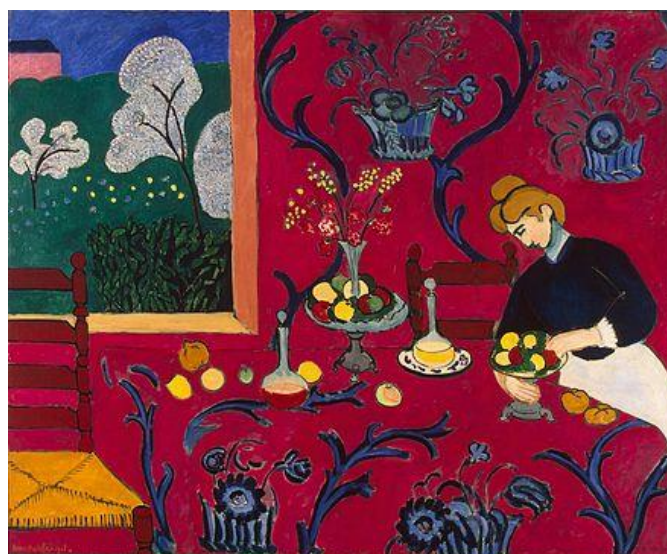


Figure 6. The Red Room (1908) Matisse (www.william-turner.org).

Matisse, in leaving the 'feeling', and Searching image Tools of "pure", is similar to Mondrian. For example, he says: Colors and lines are

power and the mystery of creation lies in the play and balance of these forces. However, he is alien to the mentality of Puritani and Calvin Mondrian. Matisse is not searching for an abstract truth, but seraches for harmony with life and the world. He, unlike Matisse, does not ignore artifacts and nature, but seeks to establish new relationships with them. Like the Impressionists, he does not look at nature from the outside. Not like Seurat, he wants to receive an analysis of the nature and not as Cézanne, he seeks to disclose the structure of nature, but he wants to capture it and make it his own. According to him, the artist attracts the outside world in self, so that the object of his design will be a part of him to make him inner so that he can bring it across the canvas as his own creation. (Bokola, 2008, p. 185).

- **George Braque, Pablo Picasso and the form concern**

Faced with African sculpture around 1906, showing Cézanne's oeuvre in 1907 are the main factors pushing George Braque and Pablo Picasso to invent cubism between 1907 and 1914. The two artists, in two stages of development, freely make the drawing from his previous links to external reality and create art and theory prerequisites of a self-order art (Bokola, 2008, p. 169).

In the first phase of cubism development, known as "analytic", Braque and Picasso took Cezanne structural approach regardless of its color and by limiting themselves to brown and ocher, green, and gray, insisted more on their form. By body and space harmonic analysis to the cubist chips, step by step, they deconstructed the shape of things and created a kind of crystal independent of the object structure, if their paintings lost the conventional image readability and became formal in the self format (Ibid).



Figure 7. A house in the garden (1908) Picasso (www.wikiart.org).

With cubism, image equipment modernization course ends that was started with Impressionism. While, Seurat broke the natural light into the whole net films to save the color and give musical resonance to it. Braque and Picasso have disintegrated the objects to volume and

geometric elements, and have self-regulated the form and have given mobility to it (Schmidt, 1976, p. 171).

In the second phase of cubism development, known as the "hybrid" _ during which Spanish Juan Gris joined Braque and Picasso _ these two artists have simplified the structure of their paintings. Individual components of the composition are larger. Ijaz, contrast and more power are emerged in lines and shapes. Variable formations of input, overlapping and often transparent levels involve the cubist effects of the previous stage (analysis). Picasso and Braque, thanks to these levels of the inputs, may mix the flatness with the image depth (Bokola, 2008, p. 170).



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Figure 8. Violin and Glass (1914) Georges Braque (www.wikipedia.org).

- **Piet Mondrian and the spiritual effect**

Piet Mondrian (1872-1944 Dutch painter and theorist), as one of the leaders of geometric abstraction, had a broad and profound impact on art and modern architecture. Mondrian believed that the appearance of the object has always prevented a beautiful feeling, so it should be removed from the image (Pakbaz, 1999, p. 541).

Mondrian has studied works including the controversial book of Helena Petrovna Blavatsky secret congenial (that is along with her till the end of life), the writings of Rudolf Steiner, and the book of great seekers like Edward Shure and in 1909, he has joined the Theosophical Society (Bokola, 2008, p. 175). Mondrian symbolism period has lasted between 1905 and 1911. The most significant of his mystical thought in three rags drawing of "evolution" can be observed, which is an attempt to show the development and the individual growth in the sight of the "Halo" (Ibid, p. 171).



Figure 9. Three rag Evolution, 1910, Mondrian (Bokola, 2008, p. 175).

A Mondrian encounter with Cubism is a revelation and a discovery. At once, he has found out about the art capacity of this visual approach, and has found his expressive possibilities of science and tangible main interests and common-law and fundamental unity of the universe. Thus, his symbolic step of his works ended suddenly. Mondrian, a few months after this change of view, has stayed in Paris to study cubism and soon, his style of painting took some distance from previous patterns and an evolution happened that its result was the emergence of "Classic" style. In flashbacks to 1937, he wrote:

I gradually realized that Cubism is not embracing its logical consequences of its finding and does not extend the abstraction to the ultimate goal, which is the expression of pure reality. I believed that this reality would be realized through pure idea. The pure notion in its natural state is not bound to feel and think. [...] The natural forms change, while the reality remains constant. Creating pure fact, in this way, requires the reduction of natural forms to fixed components of form, and the change of natural colors to the primary colors (Bukola, 2008, p. 176).



Figure 10. Reducing tree to abstract form, Mondrian (Author).

In 1913, the first fully abstract paintings - have created floating structures consisting of vertical, horizontal and half-round lines: a system that is harmonious and more or less balanced that is an inductor of a sense of calm and dignity. Then the continuous process of simplification begins. Mondrian has eliminated gradually all the remained elements of "bother" (curved and diagonal lines and combination colors) from his work and from 1925, he has satisfied with the three elements of the design: white background, black vertical and horizontal bars, and three main shades of yellow, blue and red (Ibid, p. 177).

Mondrian's later compositions, influenced by the fill pounding rhythm of shimmery neon lights, Dynamic New York City, and spicy rhythms of jazz, has colorful mosaics on their own (eg: boogie-Woogie on Broadway -1943) (Pakbaz, 1999, p. 542).

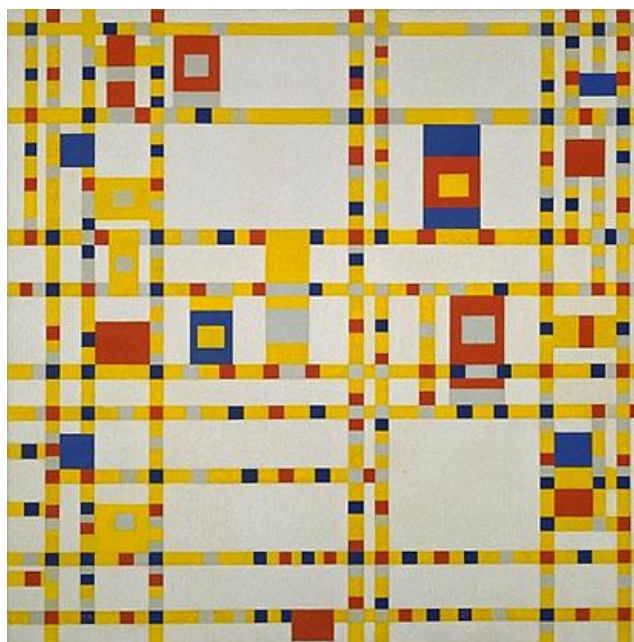


Figure 11. Boogie - Woogie on Broadway, 1943, Mondrian (Bokola, 2008, p. 181).

Mondrian and De Stijl group and other movements such as Bauhaus have left logically proven aesthetic criteria that will be entirely cleared the appearance of the technical and industrial civilization in the twentieth century (Bokola, 2008, p. 183).

Table 1. The approach of the painters to their works.

Painter	Approach in painting	Sample works
William Turner (1851-1775)	<ul style="list-style-type: none"> - Romantic trend - First simple impressions of the nature, continued follow-up searches in the world of light and color - To find a visual equivalent to a set of non-visual feelings - Passionate and romantic represented by nature, a kind of escape from reality - Visualize the thought in the picture rather than mere express 	Snow blizzard Venice, Sunrise
Claude Monet (1926-1840)	<ul style="list-style-type: none"> - Describing the visual realities for endless metaphors from the sun and shadow, water reflection and the role of moving clouds - The loss of objective nature and becoming a flood of sensory effects - One of the senses of light and color in painting - Spaces full of light, color, color dumping - The ending point of deep Renaissance reality tradition and the beginning of the discovery of the 20th century 	From sunrise Argenteuil Bridge
Paul Cézanne (1906-1839)	<ul style="list-style-type: none"> - Cézanne's art, the combines art - Things turn into areas of similar color, which are limited with certain boundary lines or get darker or brighter with the limitation of 	fruit basket Jadufan

	neighboring levels (Crystallized form in the drawings)	
Henri Matisse (1954-1869)	- Intense and brilliant colors are colors and lines of force and the secret of creation lies in the play and the balance of these forces	The Red Room
Brock (1963-1882) Picasso ((1973-1881	- Works of art is not imaging, but it is making - The shape of things will be deconstructed and a kind of crystal structure independent of the object is created - By analyzing objects into volume geometric elements, they have organized the form, and gave it mobility	House in the garden Violin and Glass
Piet Mondrian (1944-1872)	- Removing the appearance image of the object from the image because it prevents the appearance of the feeling of beauty - An abstract is extended to the ultimate goal, which is the pure reality - Reducing the natural forms to the fixed components of form, and turning the natural color to the primary color - Late compositions: Under the influence of tense rhythm in shimmery lights of neon, dynamics of New York City and fast jazz music got colorful mosaics on their own.	Three rags evolution Woogie Boogie in Broadway

- **De Stijl**

Neo Plasticism movement was founded in the Netherlands in 1917 with the establishment of the magazine De Stijl (Style). Piet Mondrian introduced the term. He has proposed the Neo Plasticism theory and has created a great revolution in abstract art. Mondrian believed that art should be "de-nature", meaning it should be free from any representation relation with natural objects and their components and rely solely on abstract elements. To achieve this, Mondrian has limited the elements of an artistic composition to straight lines and right angles (ie horizontal and vertical relations to the framework of the panel) and has used the three primary colors (blue, red and yellow) and black and white and gray (Lynten, 2003, p. 498).

In 1917, at the same time with Neo Platicism movement, the leaders of the journal De Stijl have published the opinions and views of Neo Platicism artists broadly, and the critics later called it "De Stijl". Artists of De Stijl movement were looking for balance and coordination rules, in a way that they can be applicable with art and society. The votes of the De Stijl movement artists has reached a considerable influence between the two world wars, but most especially they had an influence on the architecture and design, especially on Bauhaus school to other arts (Bani Masoud, 2010, p. 271).

Table 2. Votes from the artistic works in the De Stijl movement.

Painters	Votes from the artistic works in the De Stijl movement
William Turner	Visual equivalent for non-visual set of emotions.
Claude Monet	Loss of an objective nature and having the emotional effects. Illuminated spaces, rich in color, free of color

Paul Cézanne	Combination of art.
Henri Matisse	Intense colors and brilliant, colors and lines of force.
Braque and Picasso	Broke the object into pieces and reassembled them.
Mondrian	An abstract will be developed to an ultimate goal, which is the pure fact. Natural color conversion to the primary color

Case examples

- **Schroder House**

The Schroder House can be cited among the most important works of this movement in the architecture. Gerrit Rietveld built the building in 1924 in Utrecht in the Netherlands that is the perfect job in the architecture of residential buildings. In the Schroeder house design, he has followed the original same principles that have used in making a chair, in 1917, meaning its decomposing into pieces, and re-assembling. The layout of the house was three-dimensional in Mondrian's paintings. It has none of the elements of weight, pressure, or stillness; all levels, as far as possible, are narrow and all its external and internal volumes are enclosed. Some levels, on the corner of the building have come together, and some as if they have slipped in space with each other. The ground plan of the house has the flexibility and single rooms are "integrated" with solid walls of glass, and part of the ceiling had been evicted in such a way as if they have no anchors. The central part of the forehead building has been removed from the facade and instead, a vertical scale plane has been formed that creates a dramatic effect, as if it is an independent component and weightless. In this view, the vertical and horizontal elements intersect and balance each other. The only Schroeder intricacy is simple steel tubes that are used as fences (Lamponiani, 2002, p. 51).



Figure 12. The Schroder House (internal space), Gerrit Rietveld (1924).

- **The Barcelona Pavilion**

In the book of “Architecture and its interpretation” wrote by J.P Bonta in 1979, the Barcelona Pavilion is used as an educational work in accordance with the thoughts in the book. Bonta has discussed about architecture criticism and displaying the relation between Miss Vanderohe’s works and Netherland artists’ artistic movement in 1920 named De Stijl in his several pages of his book. The impact of this group on minimalism attitude and providing the job with minimum components in Miss Vanderohe’s works is clearly completed (Anvin, 2011, p. 39).

In 1924, Miss Vanderohe wrote: “the creation of form in the formalism approach framework is something we seek to deny” and to continue, she emphasized on form issues for objectivity of an architectural work (like Barcelona Pavilion) in 1927 and said: “I do not deny form; I do not disagree with the limitation of the architecture in the form providing”. The point that it seems Miss has tried to say is expressing each architectural project as an opportunity for reading and studying previous approaches, a search that considers the main detail and architect’s job process ahead from a repeated response to achitectural issue (Ibid, p. 40).

This loge like the Schroder House, Bauhaus buildings and Lokorbuzieh Villas will be a delicate solution for broader issues and common tool of its era. Historians pay their attention to the similarity of the map with Mondrian’s paintings, verbal use of materials (the relation between Miss with new identity), simplicity of wall surfaces that represents Miss Vanderohe’s tendency to coordinate unaffected surface from above to below, expresses the desire of Miss Vanderohe to unaffected fitness levels, from top to bottom, and have focused on the modernity and richness imagine of space with its floating Pages and uncertainties painterly fantasies (Curtis, 2003, p. 287).

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- **Fallingwater House**

If it displays the body of Fallingwater house, only in the combined components of the plan (Image), its relations are identified, in the same way that is expressed in the ideas of 1920, so that "neoplastic" will be easily possible. For example, it is possible to mention the Schroeder's house, in the city of Utrecht in the Netherlands. Fallingwater house compares the Schroeder house as less abstract in its structure, and of course, proportionally, it is more compatible with its surroundings. The plan of Fallingwater house, especially in its southern facade, emphasizes on the horizontal and natural layering of reefs around it and human movement, as well as openness to sunlight. In addition, Fallingwater house compared with the Schroeder house has more emphasis on its spread in three dimensions. In the discussed plan, it seems that architectural space, such as some boxes, is only connected to each other, while, in the spatial organization of Fallingwater house, this approach in the interior is provided both in the vertical and horizontal direction and is extended to the outdoors and landscape around the house (Unwin, 2011, p. 153).

Table 3. Traces of abstractionism, formalism, De Stijl and neoplasticism in Case studies.

Case examples	Abstractionism – formalism - De Stijl - neoplasticism	Image
Schroeder house	-Analysis of the house into pieces and then reassembling them (trace of the influence of Cubism) -Design of the House is the equivalent to three-dimensional Mondrian painting.	
The Barcelona Pavilion	-Trying a pure form, for achieving the objectivity as an architectural work. -Similarity of the Barcelona Pavilion plan map, with paintings by Mondrian. -Modernization and richness in imagining a space with floating surfaces, like Mondrian paintings.	
Fallingwater house	-Combining the elements of the plan, such as Mondrian's paintings. - Compared with Schroeder's home, it has less abstract in its structure, and of course, it has more compatibility with its surroundings.	

CONCLUSION

In the Renaissance, the art of painting has reached the realistic perfection with the invention of perspective and after this period, artists of the 18th century in Europe thought about the reality except what they observe in the nature and it was their recalling out art of nature. The art was toward the formalism and abstractionism. This movement started by William Turner and was finished with the paintings by Mondrian that was a net movement of form and color. Mondrian lived under the influence of divine wisdom and New York, where he lived, and he achieved a mystical minimalism in his works. De Stijl movement and neoplastism theory were the gateway to this formalism to the architecture. According to the research results that were done on three works of modern architecture in the early 20th century, the movement of radical abstractionism in the painting directly inspired the Schroeder house. Barcelona Pavilion in the map Plan and floating pages of the volume and Fallingwater house, in combination of its Plan components were such as Mondrian's paintings.

On completion of the study, the minimalism of Russian literature and its impact on constructivist paintings and suprematism and their relationship from the viewpoint with modern architecture can be mentioned.

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