

## Physical Order and Disorder in Gothic Architecture Style

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**Abstract:** Gothic is a period and style in history of architecture which emerged in the scene of art during the years 1137 and 1144 CE in a period which was called Age of Faith. Birthplace of this style is in "Il de France", France (present Paris and its suburbs) and it gradually expanded first to England and then to Germany and Italy. This style of architecture was a religious style that has always served the church. Gothic term has not been merely referred to architecture but, as Gothic compared to other arts, like sculpturing and painting, was more important, so it was considered as a synonym with architecture. Generally, there's a strange world full of odd thing in this style and a kind of pessimism lies in all of its facts. The architecture in Europe has been formed during the periods of thirteen and fourteen centuries and its formation in these eras has passed several stage of which seems to be reviewed in three periods of The Early Period, The Classical Period, The Revival Period. Peak of Gothic architecture was in using sculpturing and a magnificent art which was called Stained glass. These new materials are almost synonymous with Gothic. In any other periods were glass been used with such an elegance, beauty, and even skill. Max Bense who is one of the founders of informative aesthetic believes that, order has three degrees: chaos, being structured and being shaped. When we consider complete chaos that there are no regulations for connection between different components. In this case the possibility of prediction equals zero and innovation in maximum. Definition of being structured is one organized order with a structure that might have different forms. Bense calls the third part of order as a "chaos or disorganize order". In all three factors above replacement of components affected by a general organization whatever the rate of order is more and this order is more complicated, the informative content is less. In this paper first we have introduced this style briefly, we described order and disorder in the architecture and we have analyzed Evidences of order and disorder in this style.

**Key words:** Physical order and disorder, Gothic architecture style, Evidence

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### *The Gothic Architecture:*

The History of Gothic Architecture

- The Early Period

The first Gothic church was built in Paris, in 1143, which called st.denis. It skillfully solved the problem of the arch frame structure of the dome, and there were large scale of stained glass. Those were followed by many later churches. In 1144, at the ceremony of the restoring completion, the bishops were surprised at finding out that this form of construction had irresistible charm. Then 25 years later, the places where the representatives came to participate in the celebration appeared the gothic church.

- The Classical Period

It is a style of architecture which flourished during the high and late medieval period. It evolved from Romanesque architecture and was succeeded by Renaissance architecture.

Originating in 12th-century France and lasting into the 16th century, Gothic architecture was known during the period as "the French Style" with the term *Gothic* first appearing during the latter part of the Renaissance as a stylistic insult. Its characteristic features include the pointed arch, the ribbed vault and the flying buttress. Gothic architecture is most familiar as the architecture of many of the great cathedrals, abbeys and parish churches of Europe. It is also the architecture of many castles, palaces, town halls, guild halls, universities, and to a less prominent extent, private dwellings. It is in the great churches and cathedrals and in a number of civic buildings that the Gothic style was expressed most powerfully, its characteristics lending themselves to appeal to the emotions.

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A great number of ecclesiastical buildings remain from this period, of which even the smallest are often structures of architectural distinction while many of the larger churches are considered priceless works of art and are listed with UNESCO as World Heritage Sites. For this reason a study of Gothic architecture is largely a study of cathedrals and churches.

The movement has had significant influence throughout the United Kingdom as well as on the continent of Europe, in Australia and the Americas, and perhaps the number of Gothic Revival structures built in the nineteenth and twentieth centuries exceeds the number of authentic Gothic structures that had been built previously.

- **The Revival Period**

The Gothic Revival is an architectural movement which began in the 1740s in England. In the early nineteenth century, increasingly serious and learned admirers of neo-Gothic styles sought to revive medieval forms, often driven by Catholic beliefs, citation *needed* in contrast to the classical styles which were then prevalent.

## **2(Characteristics of Gothic Architecture:**

Gothic architecture is characterized by tall minarets pointed arches, large windows and stained glass painted with Bible stories. And the pointed arch, flying buttress and the long beam-column create a sense of flying. The majestic appearance the vast space in the church and the long windows with stained glass produce a strong religious atmosphere. The plane of the church is based on the Latin cross, but there is a pair of towers added on both sides of the doors at west.

### **Pointed Arch:**

It is simply known as the Gothic Arch and was reconstructed from cylindrical vault of Roman architecture. There are four stones at the end of the arch supporting the power from the top so that the height and the span of the arch are no longer restricted and the arch can be made as large and high as possible.

### **Flying Buttress:**

Buttress, also known as kongfuduo, is a supporting facility to share the pressure from the main walls. It has been largely used in Roman Architecture. The original buttress was solid and covered by the roof. However, the buttress with Gothic style is exposed out to be known as flying buttress. Due to the further requirements of the height, the role and appearance of buttress have been greatly enhanced. It is coved with complicated decorates and elaborate carvings.

### **Stained Glass:**

Gothic architecture gradually abolishes the gallery and aisle and increases the size of the window. These windows are high enough, almost to be used as the walls. The stained glass, covered with religious stories which help to illustrate the doctrines to illiterate people is of high artistic achievement. There are two main colors, blue and red. Blue symbolizes the heaven and red symbolizes the blood of Christ. The stained glass creates a mysterious but brilliant scene, which express people's longing for the kingdom of heaven.

### **Beam-Column:**

Many columns, no longer simple round, come together and emphasize the vertical lines, which makes the whole architecture to form an organic whole with simple lines and grand appearance.

### **Physical Order and Disorder in Architecture:**

The architecture is composed of different part. The connection between these components has been organized. It means that all these components are subsystem of an organism. This system or organism might be very simple or complicated. Max Bense who is one of the founders of informative aesthetic believes that, order has three degrees: chaos, being structured and being shaped. When we consider complete chaos that there are no regulations for connection between different components. In this case the possibility of prediction equals zero and innovation in maximum. Definition of being structured is one organized order with a structure that might have different forms. Bense calls the third part of order as a "chaos or disorganize order". When we talk about this order that in which all materials have been replaced that displaying the choices have been picked up freely and in united system.

In all three factors above replacement of components affected by a general organization whatever the rate

of order is more and this order is more complicated, the informative content is less. But we should not think that more complication equals chaos automatically. This order couldn't be recognized easily and could even cause mistake. More order equals less innovation. In complete chaos the probability of all components are equal, so squandering information equals zero and in consequence the possibility of new combination or maximum creation is possible.

Continuing of a style is in connection with order and squandering information and not to be with innovation. The contrast of styles comes from the difference of its components and its dominated order. In this case they have been more or less complicated and by means of that they have been connected by viewer or user. For example in Indian temples in India there is an order that they are not identifiable at the first glance because their components are almost complicated.

Order means obligation automatically. Whatever this order is severe the open space is less so it could be remained for the variety of components. And each part should obey these rules more and more. In a case that some these parts couldn't even do their main task and in reverse a kind of complicated order creates more freedom and this freedom creates more open space for forming the components and causing opacity. The two kinds of orders, of course, have some exceptions just in a condition that the main factors of organism stay stable and without changing.

Buildings which are in order and are not flexible give us less freedom. In the other word changing one factor in this system could hardly be possible. But in the opposite, these architectures give us their messages very clear and straight and nothing for personal interpretation for buildings with complicated order the issue is something else. Here in this case, we are completely free to act. Personal interpretation and opacity are possible. Such building expects us to be more active. We ourselves should discover the order of that and also search for its system. We can compare this building with Picasso's painting named Guernica. In there also this is viewer wants to comprehend the painting and this is also the viewer who is obliged to search about the organism and thoughts, problems which lay behind of the painting.

Architectural styles of Mies van der Rohe and Venturi are eventually the same (Spectrum). The contrast between the two even influenced the choice of materials. But which one of these two styles is better or more beautiful?

For answering this question it would be impossible to find a definite answer. As we will see the value of aesthetic of objects could be measured or adjusted. This value equals with the consequence of the division of order by complication. Whatever a building is more complicated its organism should be more expanded that we will be able to find a measurement for its aesthetic.

Buildings with severe order like many of Mies van der Rohe's works, either gives no opportunity to complication or it ends to chaos. In the other words, the Robert Venturi's open order needs complication that wouldn't be naively.

The important note is that in each style should be equivalent between complication and relevant order the comparison between two styles is impossible. We couldn't consider any style as the best in architecture absolutely.

But which or who make it clear that how the dominated order should be, simple or complicated?

In T. Munro's opinion that: the complication in an organism continuously being increased in an art till it makes studying harder occasionally. The consequence of this hardship is the general turning point and return to a more simplified organism. The trueness of this Munro's idea could be confirmed by informative theory.

Peter Smith proves that during architecture history, one phase with three steps is really recognition which has been repeated several times.

- A severe and distinct order dominates in first step. Coordination and simplicity has basic role in this era.
- The main characteristic of second step is tension.
- Lack of clarification and seduction are the main traits of third step. Order in here is that complicated which we are approaching to the maximum capacity of our conceptual.

There is a direct connection between the rate of regularity and division of information to semantic and aesthetics quota of semantic information and with the same ratio the effect of wisdom on emotion will be more and vice versa: when aesthetics information has had more quota or order is more complicated emotion dominates on wisdom.

An introvert person who is rationalist basically prefers the clear order and extrovert person is more emotionalists and prefers the complicated order more.

***Evidences of Order and Disorder in this Style:***

With consideration to the philosophy which has been expressed in this style, we can mention (say) that Gothic architecture wanted to move forward the man from the earth to godhood (extreme order) with the aid of beauty and perfection of artistic work and the main traits of this style could be mention as follows:

- Rising elements and dynamic lines in this architecture has demonstrated a modern mysticism in Christianity.
- decrease in interior walls in architecture has had no place for graffiti but painting on windows and wooden sheets for behind of churches altar and woven curtain makes up the shortage of this design . Generally attention to human and natural views, winding lines and brilliant colors and interest in precision and decoration are the characteristics of Gothic visual arts.
- The attitude of construction of Gothic emphasis's on using stone with technology and delicacy
- From the viewpoint of aesthetic, the skillfully ornaments on stone has changed the flat surface of architecture to dynamic, light, decorated volume.
- Turn to a kind of architecture with several layers which decrease the firmness of construction, increase the use of natural light and eventually end to painting on glass. Gothic architecture comes from the philosophy of illustration belief in God that with decorating the church by stone and glass has established a close connection of rationalistic reform between thought and body construction.
- Peak of architecture in Age of Faith, the building of church, life the city of God on earth, should illustrate a picture of other world (after life): of course it could be possible by statues, relief, tinted glass, upward dynamics and glory beyond the limitation of this world.
- The quality of extensive and sky dream in church, adaptation of religion and art (sacred geometry, space, light) and structural traits (marbled designs, pointed ceiling, flying buttress) are also creating visual elements.
- The architecture of this style didn't want anything in worship places that might distract the attention of the person from mental concentration and direct and informal connection (relationship). they wanted to move forward the person from the earth to Goddess by the help of beauty and perfection of artistic work so they were thinking of church as a firm representative of enthusiastic and light and energy.
- Gothic style was a nonstop creation. The historian pawl Franki has defined it "extraordinary peaceful", a style in growth and expansion.
- In this style the height of churches increase remarkably and the reason of that relates to)comes from( the world view of this period that tried to land the sky on that earth and in Gothic, external space demonstrates life in this world, portal (gateway) shows day of resurrection and internal space reveals after life.
- Due to promotion of sculpture in this style, relief of small statue of saint figures has been used on doorway arches that all signs and factors above beside steeples and tall and pointed towers of this style cause to create a strange feeling of watching these works.

***Conclusion:***

With consideration to the philosophy which has been expressed in this style, we can mention (say) that Gothic architecture wanted to move forward the man from the earth to godhood (extreme order) with the aid of beauty and perfection of artistic work. In this style the height of churches increase remarkably and the reason of that relates to (comes from) the world view of this period that tried to land the sky on that earth and in Gothic, external space demonstrates life in this world, portal (gateway) shows day of resurrection and internal space reveals after life.

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