

ARCHITECTURE AESTHETICS

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Abstract

Beauty or the formal aesthetic component of any architectural work, artistic or non-artistic, invites a response which expresses itself in the judgment of taste. It is a free satisfaction where free is defined as free from sensuous or moral concern, but beauty does awaken an intense aesthetic interest over the contemplation of the beautiful. Aesthetic form may be taken to mean the way in which the parts of the design go together. Balance, rhythm, harmony, line, contour, unity in variety, consonance, inversion, variation, complexity, contradiction, perspective, these constitute the very essence of architecture.

Aesthetic understanding is a form of practical reason and involves education rather than learning. In aesthetic education one acquires the capacity to notice things. It is through such education that the architect acquires the sense of what it would be like to live and work in his completed building. What the architect discovers in his designs are admirable qualities which in the last analysis are projections of his own inner self. After he has erected the building, all he can do is to sit back and wait until the artistic geniuses in the beholders create out of his design the masterpieces which in his innocence he probably assumed he himself had contrived.

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Introduction

Alberti describes the joining of lines and angles as being the most important and difficult of the architect's task. It is clear that he is referring to a problem that is at once one of construction and aesthetics. The idea of aesthetics as opposed to function is a philosophical invention. Contemporary architects speak of design problems and design solutions while attempting to set aside aesthetic considerations entirely. Sometimes, aesthetic considerations are only admitted as part of the aim of design and become the product of a solving problems correctly. Such an attitude is already present in many of the modernist manifestos from the earlier years of the former century.

The constructivist may say that aesthetic values mainly concern the way something looks but there is a clear distinction between the way something looks, what it means and what it does. In the study of how something looks and the reasoned apprehension of one's true end of action are inseparable. The study of what is right and appropriate in matters of aesthetic judgment is vital to practical wisdom, being indispensable to a true intimation of future aims. Through aesthetic understanding, our future aims become vivid to us before we are able to formulate them as politics or plans.

Aesthetic Experience

Functionalism does not deny the priority of aesthetic values in architecture. It argues that form is inseparable from function. Aesthetic experience is nothing more than experience of function. In an ideal building therefore, the form must express and make clear the function, but function is not only an essential feature of a building, necessarily a building must display a form or pattern.

Kant felt that it could be in some sense laid bare, by postulating a faculty through which sensation and concept are united. To this faculty he gave the name imagination, and he found the same faculty at work in aesthetic judgment. The difference being that, in normal perception, the imagination is bound by rules of the understanding, while in aesthetic taste it is free. It is worth examining this theory of imagination in more detail; it will lead us to the second source of obscurity in the idea that the experience of architecture involves a thought or conception of its object. It is imagination which combines the scattered data of the senses into a patterned image of the world. It provides us with our beliefs about the past and future. Kant saw imagination as a capacity exercised in every act of perception, a force active in the formation of every image and every cognitive state.

Plato considered aesthetic pleasure to be a kind of intermediary between the sensuous and the intellectual, and the pursuit of beauty to be one mode of ascent from the lower to the higher realms of mind. In this theory he recognized that there are pleasures which are internally related to both thought and sensation. But not every sense lends itself to aesthetic pleasure. The experience must be such that, in attending to it, one attends also to its object. In particular, we should note how different in this respect the eyes and the ear are from the other senses. Visual experience is essentially cognitive, so opened out, as it were, onto the object world, that our attention passes through and seizes on its object to the exclusion of all impressions of sense. Vision and hearing, and smell and taste, the full complexity of distinction between sensuous and aesthetic pleasure is apparent. The contrast between aesthetic and sensuous pleasure can be made however, without going into complexities. It suffices to study the notion of value. Values are more significant than preferences.

Notably, our experience of a building or of an architectural idiom may change as our conception of it changes. And, as our experience changes so must our taste. Such a change of experience is precisely the aim of architectural criticism. Criticism involves a search for the correct or balanced perception, the perception in which ambiguities are resolved and harmonies established, allowing the kind of pervasive visual satisfaction. The conceptions which influence our experience of architecture are far reaching as the conception which governs our lives.

The solution of an architectural problem always involves a synthesis of aesthetic and engineering abilities; a kind of synthesis which is seen at its most magnificence in the great domes of Santa Sophia, St. Peter's and the Cathedral of Florence. Nevertheless, even in architecture, there is relative purity, and it is from the pure examples that much aesthetic detail gains its sense. A large part of art will then consist, not in the solution, but in the creation of problems, since there can be no artistic freedom before there is artistic

constraint. In architecture, the creation of such problems may seem to have an artificial air. If architecture did not exhibit any of the deliberate problem-setting that is characteristic of the pure arts, it would be hard to see how many cherished details could have arisen.

Architectural Legacy

The architect lives in a certain civilization and has to work for such a civilization and is influenced by it. In such a case, the architect learns from the past with a view towards designing for today, or even for tomorrow, but not for yesterday. He will also have to meet the demands of modern society into which he is born: cultural, social, political, and economic. His work will be judged by his own contemporaries and by future generations as an architecture in its own right. The selection of examples of architectural design of the past and present is important to train one's mind and sight. The architect has the desire to preserve the best of the past and let the imagination travel into the past while using his aesthetic judgment positively. This will enable him to study the origins of architecture and design. In addition, preserving the best of the past and providing for the demands and needs of the future will guide him in his design decisions.

The interest of the creative artist and architect lies in seeing art in terms of styles having aesthetic requirements during a certain period and zeitgeist of that time given that the aesthetic experience of the past usually precedes theory about it. By this, the architect is inspired to create new forms; as the Impressionists were inspired by Japanese architecture or the Cubists by Negro sculpture. A study of architecture leads to the ever-changing attitude towards form: between a liking for the monumental or for the horizontals, or historicism and revival of the past.

Architecture is planned by one generation, and not by the next, because the next generation usually acquires different sets of formal attitudes. This is evident in the secular buildings like Gothic Cathedrals and the Renaissance that changed during the neo-classical period. In such cases, design expressed the needs of the functional and aesthetic consideration of an epoch with its great engineering achievements such as that of the industrial age. Often, the interiors of architecture remind us of the fashionable styles of that time. Even ornaments remind us of their use in architecture and furniture of the same period. These ornaments disclose the taste and the social changes and the conservatism of an age.

In fact, architecture theories contribute to the understanding of contemporary architectural design. The thoughts and talents of the pioneers who created something emanating from their spiritual attitudes and experiences have quite different visual ways to depart from conventional ideas of life with their own philosophies. However valuable this maybe, style and greatness does not necessarily help understanding contemporary architecture. If a new style for instance, digital architecture, has to be judged by our new rules, this does not mean a condemnation of past styles. If this new digital style fails to find a language acceptable to us, we must not escape to former safer styles. Picasso admitted that mistakes could not be avoided, and at the same time, it is quite impossible to return to the past and do the work of an earlier style which has long been surpassed by the architect's actual visual attitude. One must not fail to understand the architecture of

his time nor return to classical architecture or to any architecture of the past; Such a return would mean ignoring the present and living in the past. The architect cannot isolate himself from convention. He cannot become neo-prehistoric. Perhaps, an advice to close all museums for some time to allow the architect to find his own style seems sincere. One must have a positive approach and find a new visual vocabulary for the creative needs of today and tomorrow.

Unity of Design and Aesthetic Experience

For Hegel, being and thinking are identical. This means that the work of architecture and design and the experience caused by it are in fact one. They cannot be separated even though we talk about them as if they were separate. Hegel writes that the laws of nature, the history and evolution of mankind, art and architecture, and self-analysis of the human mind are all contributing towards the spiritual nature of the universe. This theory is applicable to any creative process; be it visual or non-visual. Art and architecture and the factors which go towards their creation are inseparable. Today, architecture is considered a rational exercise of imitation and illusion to satisfy the intellect alone. Today, it is obvious that the non-rational is the inspiration for the rational to be translated into physical terms. The non-rational laws of the co-incident, once accepted by some non-European civilizations, have come back into Western thinking and seem to stay.

Movement

Since the Baroque period the element of speed in art and architecture has become more pronounced. The undulating line of the Baroque was the most dominant characteristic of the seventeenth century architecture. The Romanticism of the nineteenth century expresses speed to an extent unknown hitherto and demonstrates a revolution of visual attitude with very modern feeling. Also Art Nouveau broke away from the classical attitude. The Futurists, proclaiming in a Manifesto in 1911 the aesthetic superiority of a fast car over a work of classical Greek. Speed through color motion in Op and Pop Art is another aspect of the revolution.

Movement is explored by the designer by way of perspective. Movement adds interest and is necessary to give impact to design, because works that are too passive in conception have little effect on the beholder. Our age is the age of movement and architecture has to follow this trend. A composition consists usually of several focal points towards which all the other elements are visually directed. The onlooker passes over the different planes or concentration of elements of a composition, one after the other until a real visual interest has been aroused.

Movement in a work of architecture and design is determined by active and passive elements which contrast with or complement one another. In depicting movement, the architect is expressing time, change and sequence, expressed in abstract terms as it is not necessarily related to figurative objectivity.

Distortion

Distortion is demanded also by the creative mind to shape and compose in a certain way when the public cannot appreciate certain forms, arrangements or structures far beyond the architect's intention. In Egyptian architecture, proportions were idealized according to

the human body proportions which are anatomically impossible. Considerable distortions are in the works of Mannerists after the high period of the Renaissance, and even in the work of Michel Angelo which forecasts the style of Baroque.

In architecture the decisive change to freely-composed and distorted forms was due to the collapse of the eclectic styles which was brought about by the pioneers of modern architecture. Form is mainly used to describe the third dimension in art and design. Those who look for the visual sensation will see the actual appearance of form can vary through environment, climatic condition or through factors of time. Form is determined by the space it occupies. Form should be pleasing to the eye besides fulfilling functional considerations.

Architects designed using very simple forms in order to find a new visual language, as did Baroque architects, but this search for simplicity of form is not confined to the pioneers of modern architecture. In all periods richer or more elaborate styles were replaced by a new simple language or form. Egyptian, classical Greek and Roman architecture began as simple forms. A new form was frequently found by anti-art, by protesting against the past. The Modern movement demonstrates the purpose of architects in striving for new form.

Abstraction

Abstract notions are difficult to express in visual terms. The architect relies on his own imagination and the association given by the public he is approaching, or find a compromise between association and abstraction. A work of architecture must be hypnotic that the observer does not feel indifferent. Architecture is either transformed nature or abstract nature. The struggle of the architect in being inspired by nature has been noticeable through the history of man, and the influence of nature on the field of architecture.

In ancient Egypt the lotus plant served as a prototype for the development of form in capitals. Every period finds in nature a different prototype for the decoration of capitals. The acanthus appears in the Corinthian order of Greek and Roman architecture. Revivals as in Arts and Crafts movement or in Art Nouveau were followed by modern architecture in which function and proportion displaced the importance of ornament derived from nature.

Rhythm

Rhythm in architecture as rhythm in human life is based on an external rhythm of day and night, in tune with the cycle of the seasons. But the architect always attempts to create new rhythms in which function and aesthetics are given consideration. To create rhythm, however, he needs more than one element of form where the degree of harmony will depend on the properties of these elements of forms. Two identical elements will create harmony, while two opposing elements will create contrast.

Symmetry is considered to express harmony and tranquility, while asymmetry brings contrast, disturbance, and strong emotions. Regular rhythm is produced by repeating identical intervals. Irregular rhythm is produced by the repetition of dissimilar opposing and varied accentuations.

Although the architect has to solve a problem of function in design, the outcome cannot be analyzed efficiently given that the extent to which the result is rational cannot be determined. The architect has to examine the perspective capabilities of the human eye. A good deal of experience is needed to anticipate how the human eye will react, and the psychological aspect that plays an important role for persuading the eye to react.

Structure

The architect creates interesting compositions by concentrating on focal centers which attract the eye to the composition. The architect tries to persuade the client to look at the design in the right visual sequence, and with some imagination lets him enjoy the abstract theme. In figurative architecture, the senses are inspired by the ability of the architect to produce facts and capture moods to arouse feelings. This kind had been the intentions of the Impressionists and the Expressionists in architectural history.

The architect often disregards the aim in the search for good form and new ideas. This creative activity embraces all fields of human life – not only the visual arts but everything that goes further than the specific functional purpose of an object. Naturally, the designed object of functional purpose should have aesthetic value which produces visual sensation by its forms. Architecture design, however, has to be functional in the first instance. Visual excitement by way of contrast is subjective and is dependent on the reaction of the observer to aesthetic properties. The architect gives serious thought to functional structure and visually related structure before starting to design. To create a well-related structure that works, a really good designer is needed.

Today the public wants objects which visually please because they are sound in both structure and form. The Guggenheim Museum by Frank Lloyd Wright excels structurally in both functional and visual terms. This proves that the study of nature and aesthetics can help the architect and the designer, in particular, explore the possibilities and limitations dictated by purpose and material. The architect has to establish a structure within his visual world, to find out how structure works. There is a structure that is expressive and evokes powerful feelings as those experienced when standing underneath the Eiffel Tower or a huge modern building.

Texture, Color, and Light

There are many ways of using texture. The architect incorporates texture into structure. Le Corbusier's monastery at La Tourette is a good example of using texture inspired from nature, namely the wood grain made on the concrete surface of walls by the shoring.

The creative architect makes use of complementary treatment of form and color. A warm shape can be emphasized by red and orange. A warm color treatment is a good means of attracting attention. White color evokes feelings of respect and could be psychologically emphasized by a cold color such as blue. The Gothic period which advocated restraint from lust used cold colors to underline the sharp forms of their architecture, sculpture, and lettering. By contrast, the Baroque period, playing with the effect of natural light, gave voluminous forms of architecture.

Advancing and receding tones create the feeling of space. The plastic effect of natural light models the architecture and sculpture. By an ever changing light, tonal and texture

relationship are created in a visual composition. The aesthetic demand of the eye has been described as color sense, or color culture, but it needs developing if it is to be used in architectural career. A piece of grey placed on a white and then on a black background gives the illusion of different tone values. Similarly red on a yellow background appears dark, whereas the same red on a blue background looks brighter and warmer. The tone value of color depends largely on its surroundings. The degree of brightness of a color and its tone value do not always correspond to each other. Not only the optical appearance but also the character of color can be varied by its background.

The Golden Section

Aesthetic concepts obey the laws of change although the golden section has often been described as an absolute principle of composition. The golden section may easily be discovered in most works of architecture and design. It can be found in classical architecture, as well as in the work of the Romanesque period and the Italian Renaissance where it is used to articulate areas and to make an organic composition of intervals and rhythm. The golden section can secure good proportions of height and width in matters as diverse as the two dimensions of a window and a door or a Gothic Cathedral and the Egyptian Pyramids.

There has been an art movement called the Section d'Or. The name was coined in 1912 by the Parisian painter and graphic designer Jacques Villon. This group discussed the theory of Cubism, for the first time, with the founders of the theory who told that they have borrowed the golden section from the theories of Leonardo da Vinci, which were now translated into new terms to explain the principle of Cubism. Though each generation looks at the aesthetics of art and design with its own eyes, though each generation has its favorite periods of the past. The human body inspired the proportions of the golden section. Beauty exists in these proportions and their relationships.

Beauty and Function

The architect is converting sensations into intuitions, embodying the ideal in sensuous form and is affirming the authenticity of existence. The Bauhaus architect Hanes Meyer has said that "it is absurdity to talk about the modern style in terms of aesthetics at all. If a building provides adequately, completely and without compromise for it is a good building regardless of its appearance." Adolf Loos asserted that architecture should be counted among the arts only to the minor extent to which it is concerned with tombs and monuments, since the contamination of art and material purpose "profane the highest". Schopenhauer said "architecture to the extent to which it fulfills practical purposes, cannot be called art since when it serves utility it serves the will that is, material needs rather than pure cognition".

On the other hand functionalists maintained that, strict adherence to practical requirements would automatically meet the demands of beauty. They looked to nature which attains perfect beauty unintentionally through sheer practicality. Thus, Frank Lloyd Wright, speaking of a flower, said "Law and order are the basis of its finished grace and beauty, its beauty is the expression of fundamental conditions in line, form, and color, true to them, and existing to fulfill them according to design". Wright and Louis H. Sullivan believed that by some happy correspondence beauty was produced when utility

was intended. By beauty they meant order and harmony, balance, proportion, unity, and parsimony.

Nature, under the pressure of the physical striving for balance and the Darwinian principle of selection can produce shapes that satisfy standards of proportion, harmony, order and unity. These criteria define beauty in the traditional sense of the term, but they do not meet the requirement of architecture. The natural object rarely constitutes a complete statement of meaningful expression because its external appearance was not devised for that purpose. External expression comes about in the natural object as an intentional by-product of physical organization and, therefore, is not likely to meet the condition of visual unity, consistency, and composition that must be fulfilled in an artistic statement.

Beauty and Expression

Beauty is treated as an entity separated not only from function but also from expression. Expression is cerebral rather than retinal; it arises in the brain than the eye, but is lawfully dependent on the stimuli recorded by the eyes. Every change of shape makes for a corresponding change of expression.

Vitruvius asserts that architecture must meet six criteria. Four of these refer to the requirements of beauty namely, order, arrangement, eurhythmy, and symmetry. But it may be worth mentioning that even psychologists tend to neglect expression when they deal with problems of aesthetics. Hegel thought of architecture as the lowest among the arts because its medium is matter, subject only to the laws of gravity and therefore unsuitable for the representation of the spirit.

Oriental architecture gives expression to broad social and religious ideas; Greek architecture incorporates the function of the utility of the building and thereby relinquishes expression and develops beauty, that is, harmony of proportion. The Gothic expression is combined with utility, but here the demands of beauty remain unheeded. In the Gothic cathedral utility, although it is present physically, vanishes nevertheless from sight, giving the whole building the appearance of an independent existence. Practical utility is transformed into what serves the subjective devotion of the mind.

The buildings of the romantic phase receive their meaning and value from what the feeling mind puts into it. The external medium as such is different and inferior. Architecture being non-representational is purely material, inferior, limited to the play of physical forces. The expression of the spirit can be attained only when the human figure is represented.

Conclusion

Fitness has rarely been limited to the demand that the objects should suit their practical purpose physically. There is the further request that the function of the object and its fitness to fulfill that function should be visible. Therefore, the object should show what it is for, how it serves its function, and the object should show its purpose in the name of honesty and truth.

Perceptual equivalents must be invented by the designer for all significant physical characteristics and relations, and beauty turns out to be an essential attribute of good design, because the order and clarity brought about by harmony of shape and good proportion are necessary to make the design readable. Beauty is a means of clarifying expression.

Function plays an important part in the aesthetics of the useful object. So, our knowledge of the physical functioning of a useful object amplifies the pattern of perceptual forces offered by its appearance. What the architect discovers in his designs are admirable qualities which in the last analysis are projections of his own inner self. The powerful soaring of Gothic columns and vaults; these and other architectural forms derive their glory not from the architect who designed them, but rather from the people who look at them. Good design cannot be serene, or majestic. These qualities have their origin in the observer, and are projected by him into the visual perceptions. The architect is not an artist. He is a trained technician, who cleverly manipulates his lines and forms. After he has erected the building, all he can do is to sit back and wait until the artistic geniuses in the beholders create out of his design the masterpieces which in his innocence he probably assumed he himself had contrived.