

New Era Redefines the Aesthetics

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Abstract: Aesthetics is a philosophical notion of beauty. It is a result of education and awareness of elite cultural values. The influence like visual art, literature, science and advanced technology, material are influential in defining aesthetics. This paper is aimed to analyse the influence of associated fields on architectural aesthetics. The paper will discuss as the objective is to examine changes in allied fields and aesthetics in architecture. Case studies will be referred from important architectural movements from De Stijl to Parametricism. Identified parameters will be used for correlating influences and different architectural movements. Analysis and findings will be useful for overall understanding of future forms of aesthetics.

Keywords:

Aesthetics, Allied forces, Architectural movements,

Introduction:-

Philosopher Kant defines aesthetics as “Judgments of beauty are sensory, emotional and intellectual all at once.” Aesthetics is a branch of Philosophy and Axiology. Where Axiology is study of quality and ethics. In all creative fields aesthetics has its own place. Architecture is known as the mother of all arts. Thus, this team is of great importance to the field. While studying the history of architecture, indirectly history of aesthetics is also studied. Every master architect and architectural style have its own value system for defining this term.

Today’s scenario is of monotonous urban fabric, unpleasing forms, and creating disordered environments. It is impacting on the dwellers of the city visually, mentally, psychologically. As aesthetics are important for the physiologically and psychologically well-being of humans, the importance of finding ways to make the environment “liveable” and more pleasing through aesthetic approaches should be understood by the architects and designers. This has generated curiosity, how buildings could be pleasing to masses. This paper discusses theoretical aspects of aesthetics through architectural movements. The research question of the study is ‘How allied fields have affected aesthetics’. The aim of this study is to analyse the impact of allied disciplines like visual art, literature, science and technology has governed on aesthetics of architecture. While examining these movements of architecture paper has the initial objective to examine changes in allied disciplines. While second objective is to find-out it’s correlation with built form.

Methodology:-

This study is based on case studies from many architectural movements. Cases were chosen as per the influences. It starts with the Industrial revolution till contemporary parametricism. Cases are discussed chronologically. Cases are chosen in such a way that different influential allied fields are associated. Parameters identified are Philosophy, Geometry, built form, Ornamentation, Material & Construction tech. These parameters has a major role in defining aesthetics. Thus all cases are compared across these parameters.

Case studies:-

1. Industrial Revolution: Crystal Palace by Joseph Paxton
This phase was highly influenced with industrial materials, i.e. glass and iron. So rigid masonry walls were replaced by screen of new materials. Introduction of long spans and high rise were started with these lightweight materials. Though the basic configuration was not very different than cathedral building (Easton, 2016).



Fig: 1 Crystal Palace displaying new industrial material such as Glass, Iron.

Arts and Craft s Movement: this is one of the most important period. John Ruskin the philosopher who could change mind set of people through his writings like ‘The Stone of Venice’ ‘Seven Lamps of Architecture’ had a great impact on the intellectuals of Victorian England (Canaday, 2017). This movement gave new language of aesthetics.

2. Art Nouveau: Hôtel Tassel by Victor Horta
With this movement people began to translate natural elements of trees into the new formal language of ornamentation. This inspired language enhanced the space quality by introducing hyperbolas and parabolas. Ornamentation was in abstracted form & was in three dimensions. Instead of thick walls use of steel columns- filler walls. Instead of bulky monumentality it proposed fresh inventions exploiting the lightness & airiness permitted by glass & metal construction (F. Sandrolini, 2011).



Fig: 2 Hôtel Tassel uses new formal language of ornamentation inspired by nature.

3. De-Stijl: Schroder House

Piet Mondrian and Theo Van Doesburg developed abstraction of art where the viewer is free to interpret the painting as per his/her aspirations. These painters have refused the earlier forms of paintings and were in search of a new form which would represent their present context properly. They developed a new vocabulary of representing three dimensional forms on a flat surface. Their emphasis was on space and form in its pure form. Schroder house was transformation of Piet Modrian's painting into architectural built form. Principles of right angled lines, interlocking cubes and use of primary colors were celebrated in this phase of architecture. The form of the building was now more spatial in conception as structural elements were creating a more open collection of spaces (J.Tietz, 1999)



Fig: 3 Painting of Piet Modrian & its transformation into architectural built form

4. The International Style:

Theory of relativity by A. Einstein and Theory of Evolution by Darwin were most influential causes for analytical thinking of this period. Rationalism, Minimalism- methods of science & reasoning were the greatest motivational factor for the development of Modernism or International style. Rejection of ornamentation was adopted by analytical thinking of rationalism. As this age was of innovations and discoveries in science and technology, it was highly governed by Machine/ Industrial aesthetics. Idea of assembly and standardised mass production was praised. 'Form follows function', 'Less is More' were two terms coined most of the forms were the derivatives of these two terms (C., 1999).



Fig: 4 Segrum Building by M. Rohe is an expression of modern philosophies

5. Post Modernism

A void was experienced because of rejection of history, art, ornamentation by Modernism. Thus, this period is known as revival of history, Symbols, Context, Ornamentation and Colours. This era was more about 'Narrative forms' and 'quest for interpretation & meaning'. It was of the nostalgic revival of historic forms with new meaning clad in new materials. Pop art was one of the influential field on this period (Harrison, 2001).



Fig: 5 The Pop art group discussions centred on pop culture implications from elements such as mass advertising, movies, product design, comic strips, science fiction and technology



Fig: 6 Vanna Venturi House was the first attempt of Post- modern philosophies

In Vanna Venturi House architect has introduced elements from history with new approaches. Broken pediment- an element of mannerist arch used as a light shaft follows the principles of 'asymmetric symmetry', Articulation of windows, Doorway is pure form – a cube- the actual door lies at a right angle to the front. Flattened arch over entrance (J.Tietz, 1999).

6. Deconstruction

French Philosopher J.Derrida deconstructed the idea of 'binary opposition' from structuralism. Many architects like P.Eisenmen, B.Tschumi got influenced with this Deconstruction in literature and started applying in architecture. Due to influential Structural gymnastic, new dynamic spatial possibilities were explored through Non-Euclidean geometry (B.Tschumi, 1991).



Fig: 7 Park La Ville project demonstrated using Deconstruction theory where spaces were derived from activity

7. Parametrisim

This term is coined by P.Schumacher. Influences are drawn from Quantum theory whose clarifications are at sub-atomic level. Key concepts borrowed from Behavioural studies are Feedback, Homeostasis, Self- regulation, Equilibrium, Information, and Entropy. These are getting transformed into architecture, taking its own context. Shift from Mechanistic Cartesian view to System view (P.Schumacher, 2008).



Fig: 8 The project explores the architectural transfer of biological principles of the sea urchin's plate skeleton morphology by means of novel computer-based design and simulation methods, along with CNC methods for its building implementation

System view which elaborates on biological analogies and evolutionary theory's understanding of nature's life processes and interrelations between organism and their environments. The computer has become good experimental engine to explore all these aspects in almost all fields. Performance testing, rapid prototyping, energy saving techniques, bionics, and the use of evolutionary, generative theory are becoming the core of the architectural design process. Computer entered processes of architectural design, production and use (N.Spiller, 2007).

Analysis:-

Parameters	Industrial Revolution	Art Nouveau	De-Stilj	Modernism	Post-Modernism	De - Construction	Parametrisms	Inferences
Philosophical Idea	Capitalism, Marxism	Organic, plant inspired motifs.	Spiritual harmony & order	Rationalism, Minimalism-methods of science & reasoning, Anti-Historicism	Romanticism	Deconstruction in Literature by J. Derrida	Evolutionary and Generative theory	Each era has its own dominant thought process
Influential field		Flowing curvilinear forms of plants	Painting Abstract paintings of Piet Mondrain & Theo Van Doesburg	Science Theory of Relativity and Theory of Evolution	Pop Culture Pop art	Literature Structuralism	Science Quantum & string theory	Few fields (Science) are getting repeated
Geometry	Euclidean	Hyperbola, Parabola used as structural elements	Reduction to essential form, simplicity of lines	Pure Forms. Permutation & combination of cuboids	Euclidean	Non-Euclidean geometries were explored	Non-Euclidean, Topological	Geometry is getting more complex with time
Ornamentation	Progressive rejection in ornamentation	Ornamentation was first time in third dimension because of steel	Rejection of ornamentation	Total Rejection of ornamentation	Revival of Ornamentation with redefining historical elements	Rejection of ornamentation	No ornamentation	Idea of craft is changing and hence its expression is altering
Built Form	Long span & high rise structures started	Thin walls, large openings transformed to lit & airy spaces	Interlocking cuboids exploring fluid nature of space	Purity of forms but space is not contended. It is going beyond the envelop. flow inside out	Narrative Forms Historic forms with new meaning	Ambiguous, Challenging to physics norms, conventional thinking	Fluid, Topological	Transformation is seen from Rigid rectilinear form to fluid form
Construction Tech. & Material	Heavy use of industrial materials-Steel, Glass	Steel, Glass, Concrete	Steel, Glass, Concrete	Industrial materials-Steel, Glass, Concrete Standardised mass production	Use of natural materials.	High tech, Material diversity-Alloys, Aluminium	Advancement in material science and CNC, robotics are proving enriching for architecture	Each era explored new materials hence a new construction system evolved accordingly
Aesthetics	Industrial			Machine aesthetics	Collage, Pastiche	Shocking, Kinaesthetic, Imbalance	Digital aesthetics	Mutation is seen as per change in sensitivity and perception of above fields

Conclusion:-

The analysis shows how different fields, elements effects on sensitivity of the mass of people. It is about values, subconscious behaviour & training. Creation or appreciation of a building or an artwork is changing from one era to another.

That change in perception is because of nurturing fields affecting or developing type of sensitivity. These fields will change as time progresses, such change in influential domain will change the definition of aesthetics.

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