

## Towards Sustainable Aesthetics in Architecture

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**Abstract:** *The manner, in which we architects are handling sustainability in buildings, is more as codes, or regulations which needs to be complied with. The rating systems have ended being used as a marketing tool. The architectural solution to sustainable buildings does not lie in the science of making the building, but in the philosophy of aesthetics of building. This paper is an attempt to bring an understanding of sustainability, by studying the philosophy of aesthetics, understanding the science of perception and involvement of all factors influencing perception. Concluding by arguing how sustainability can influence Aesthetics and reframing the philosophy of Aesthetics.*

Key words: **Aesthetics, Sustainable, Perception, Architecture**

### 1. Introduction

Architecture is the profession that directly and indirectly deals with human habitat. Presently the human habitat is facing the impacts of 'Climate Change', and need is to deal with it in a sustainable manner. The responsibility of mitigating the impacts of 'Climate Change' rests more with architects than any other profession. As architects we are dealing with it, but we also need to see whether it is working in the manner that we had envisaged. Today, the manner in which we are handling sustainability in buildings is more as codes, or rules & regulations which needs to be complied with. The rating systems for sustainable building have ended being used as a marketing tool for promotion of the building; in the author's view, it has failed to produce an effective architectural solution for sustainable buildings.

When we see buildings around us we see many impactful buildings, creating the image of a city. But the image seen is not of environmental sustainability. Architects have not been able to respond effectively to the environmental impact. The author feels the reason for it is that, we are looking for solution in the science of building, whereas the solution lies in understanding the 'philosophy of aesthetics' of building, which will help us in creating a sustainable image for the city. It lies in understanding the way in which we perceive buildings. The buildings need to be **aesthetically perceived** as sustainable buildings in addition to it working as a sustainable building.

### Need for Sustainable Aesthetics in Architecture

Leo Tolstoy claims that what decides whether or not something is art is how it is experienced by its audience, not by the intention of its creator. Aesthetics is simply understood as 'study of emotions in relation to sense of beauty'. On looking around us we see many beautiful buildings. Since they are perceived as beautiful, they must be fulfilling the theory of 'Principles of Visual design', i.e.- Balance, Massing, Proportion, etc. But just good looking building is not enough, taking for examples buildings like (from Navi Mumbai only)



Figure 1: Kesar Solitare, Seawoods Station complex, Navi Mumbai

KesarSolitare, a glass clad office building; Seawoods railway station complex (and many other buildings like it)-visually iconic buildings, but aesthetically it does not convey as belonging to the present era of sustainability and environment friendliness;



Figure 2: NMMC Headoffice, Navi Mumbai

another example is the NMMC head office building, again visually it is a beautiful building, but aesthetically it is perceived as a building belonging to the colonial era, it does not convey about as being a building for the public. Ironically it is a green rated building, but is not perceived as being a sustainable building by the public. Aesthetically it is

not perceived as belonging to the present era of sustainability and environment friendliness. This perception has to change.

## 2. Methodology

The methodology of this article is logical argumentation, leading to establish the new definition of sustainable aesthetics in architecture. The sequence of argumentation is

- Understand Sustainability in architecture
- Understand Aesthetics in architecture
- Define Sustainable aesthetics in architecture

## 3. Sustainability in architecture

### Definition- Sustainable development:

In 1987, the United Nations' World Commission on Environment and Development defined "sustainable development" as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The four most basic components of architectural development are 1-Aesthetics, 2-Sociology, 3-Technology and 4-Economics. Of which the main focus for achieving sustainable development is on Technology and Economics. To achieve a complete and impactful development we will also have to bring the focus on Aesthetics in architecture.

## 4. Aesthetics in architecture

### Definition- Aesthetics:

Aesthetics is a branch of philosophy (beside epistemology, logic, ethics, and metaphysics) that deals with a conceptual and theoretical research in the area of art and aesthetic experience (*Britannica*, 2009).

The term aesthetics comes from the Greek word "aisthetike" meaning "to perceive". The philosopher Alexander Gottlieb Baumgarten defined it as "the science of how things are known through the senses" in 1735. The term aesthetics was used in German, shortly after Baumgarten introduced its Latin form (*Aesthetica*), but was not widely used in English until the beginning of the 19th century. Following Kant's work "Critique of Judgment", the term "aesthetics" has placed its position in modern aesthetics. Aesthetics is considered as one of the main qualities of architecture according to Roman architect Vitruvius (15 B.C.). His definition of good architecture depends on three criteria as *venustas* (beauty), *utilitas* (utility) and *firmitas* (firmness). Recently, these aspects of architecture were interpreted as *form*, *function* and *construction*. Here, *form* refers to the aesthetic aspects of buildings. Aesthetics is one of the

important principles of architecture to be understood as a philosophy behind a pleasing appearance.

Aesthetics simply is understood as 'study of emotions in relation to sense of beauty'. The aesthetic experience begins with the senses through the sensory organs and converted to feelings in the human brain. These feelings based on the past experiences and recorded in the brain are perceived as emotions. These past experiences are derived from social condition of the person and the surrounding context.

Functionalists like Monroe Beardsley argue that whether or not a piece counts as art depends on what function it plays in a particular context; the same Greek vase may play a non-artistic function in one context (carrying wine), and an artistic function in another context (helping us to appreciate the beauty of the human figure).'

The understanding of the appreciation of beauty should be based on the surrounding and the social context, since the most important and relevant context today is environmental sustainability; we need to reframe the philosophy of aesthetics to sustainable aesthetics and redefine it.

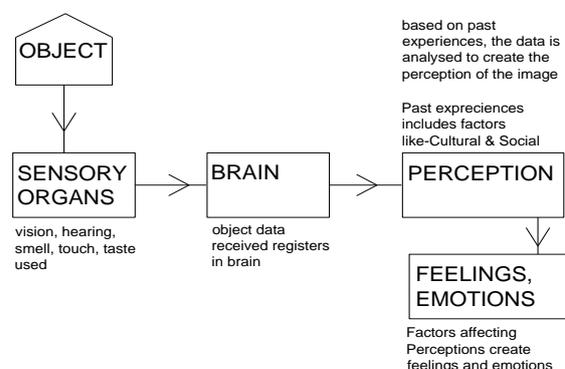
## 5. Sustainable Aesthetics in architecture

First we need to agree that the present way of thinking about sustainability is not working, and then we need to look for new ways of thinking. By adopting the science of building, we are able to reach only a small portion of the population, whereas Aesthetic appeal has a wider reach. For which we need to integrate sustainability and aesthetics. And redefine Aesthetics as Sustainable Aesthetics.

### The way ahead

Instead of forcing the sustainability principles on the building, sustainability should drive and derive the form. Visually the building should be **perceived** as sustainable. Form has always played a dominant role in an architect's thinking, by including sustainability in the form; aesthetics will once again dominate over technology.

The diagram below is made from an understanding derived from various references as mentioned at the end of the paper.



From the above diagram it would be clear that, to have a perception, the past experiences (derived from knowledge, social & cultural factors) play an important role. Hereafter the

task is to ingrain the data in the brain with experiences which are sustainable.

### Making Sustainable Aesthetics work

The only way to make sustainability work is to make sustainable aesthetics work. As George Nelson said “What we see is what we bring to seeing”. We need to highlight the sustainability driven form.

Here are few examples of sustainability driven form:



Figure 3: Dallas City Hall - form driven by sun movement



Figure 4: Bharin World Trade Centre - Integration of windmills in form



Figure 5: Wuhan-Energy-Centre, Masdar-HQ - Integration of Solar Panels in form



Figure 6: Liverpool-Uni-Energy-Centre, Roof House Hamzah\_

### Defining Sustainable Aesthetics in architecture

Sustainable aesthetics must fulfill the following factors:

- Must be visually appealing & form driven
- Must have a practical approach
- Must be a concept generator
- Specific to context in its application

### 6. Conclusion

Every sustainable building must be born out of its place and the forces at work in that place.

When a building is truly in tune with its context, symphony (*agreement or concord of sound*) in architecture is created.

When a building harnesses the natural forces and responds to the characteristics of its place, we experience beauty.

### Examples of Sustainable Aesthetics in architecture

#### REFERENCES

- i. David Barrett Douglass, *Defining a Sustainable Aesthetic: A New Paradigm for Architecture*. Thesis work at Faculty of Architecture - University of Southern California, USA, (2008)
- ii. MohammadjavadMahdavejad, *Aesthetics and Architectural Education and learning Process*. Paper at 5th World conference on Educational sciences-WCES 2013
- iii. SemraSemaUzunoglu, *Aesthetics and Architectural Education*. Paper in Artsedu 2012
- iv. Adam John Privitera, *Sensation and Perception*, Chemeketa Community College
- v. Lydia Denworth, *The Five Senses and the Nature of Perception, Brain Waves*.