

“PAPEC” DEVELOPMENT

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Introduction

At the forthcoming century, earth is being warned by increasing the temperature due to greenhouse gas emissions, a thinning ozone layer, use up of natural resources such as lack of fresh water and reduced capacity of food production. All of these issues are surfaced and exacerbated by a steadily increasing population and consumption of materials under the name of quality of life. “Our human values and institutions have set mankind on a collision course with the law of nature” (Human Ecology: Problem and Solutions, Enrich, Holden)

Discussion

What is the sustainability? How to apply to building construction? The term sustainability has little to do with a literal definition of word per dictionary, but is the terminology of buzzword, describing for new technology. The design, construction and maintenance of buildings have a tremendous impact on our environment and natural resources in several different ways.



Here is a picture of 100day anniversary of a child. In Korea, we normally celebrate 100days live of new baby while in old days so many children had not been sustained 100days. It is a celebration to the child to sustain his life passing the hill of 100days. Your countries may have unique cultures and traditions to maintain the sustainability similar to this.

My approach is referring to level of development in three categories while each sector has a different concept of sustainability.

- Developed sector.
- Under developing sector.
- Undeveloped sector.

The developed sector interprets that the sustainability is to keep from the givens, the level of their development, even they obtain the givens by influencing the other resources. For example, they had gold and wanted to keep. But to get gold, they already created a lot of impact to nature. This sector of field in professional should focus on the way of recirculation, reuse, long-life with enjoying the products or facilities.

The underdeveloped sector introduces that the sustainability represents to find minimal impacts to transition from a period of deterioration of the natural resources to a more human and natural environment. This sector in professional should consider the application of the given items and be developed items as well.

The undeveloped sector is the most critical area beside current deforming changes of global environment. The undeveloped sector in professional should manage the concept with the intensive effort while they are more that 70% of earth involved.

It is a concept that recognizes while human civilization is an integral part of the natural world, and that nature must be preserved and perpetuated if the human community itself is to survive.

Sustainable design articulates this idea through developments that exemplify the principles of conservation and encourage the application of those principles in our daily lives. Sustainable design, sustainable development, design with nature, environmentally sensitive design, holistic resource management - regardless of what it's called, means the capability of natural and cultural systems being continued over time.

Sustainability does not require a loss in the quality of life, but does require a change in mind-set, a change in values toward less consumptive life styles. These changes must embrace global interdependence, environmental maintenance, social responsibility, and economic viability.

Sustainable design must use an alternative approach to traditional design that incorporates these changes in mind-set. The new design approach must recognize the impacts of every design choice on the natural and cultural resources of the local, regional, and global environments. Sustainable design must require a new attitude about relationships between spirit and matter. All aspects of human settlement including community and dwelling considered in terms of existing and evolving connections between spiritual and material consciousness.

In this report, based on rationale comparison between traditional and sustainable developments, we should examine the concept of sustainable architecture, search for the philosophy of sustainable design, and propose the objective and checklist for sustainable design.

THE CONCEPT OF SUSTAINABLE ARCHITECTURE

The concept of sustainable design was mentioned frequently, as it covers a wide range of topics. It integrates principles that enable humans to live in harmony with the rest of the natural world, protecting biodiversity and sharing habitats with environmental forces. Beyond the change in basic approach, sustainable architectural design requires holistic, ecologically based strategies to create man-made environment that do not alter or impair, but instead, help repair and restore existing environmental systems.

Previous to the use of the term "sustainable architecture," the term "solar architecture" expressed the architectural concept of the reduction of the consumption of natural resources and fuels. The intent was that we could conserve our fuel resources through the immediate capture of the available solar energy through appropriate building design. The evolution of the development of this design approach has brought us to the current and broader concept of "sustainable architecture." This term describes those who take up the banner for an energy and ecologically conscious approach to the design of the built environment. In so doing, it has broadened the scope of issues involved.

Sustainable building design reinforces the holistic character of an environment. It conveys appreciation of and respect for the interrelationships of an environment, illuminating the interconnection of all parts through responsive design integrated with interpretive and cultural objects. The concept of sustainable architecture suggests an approach to the relationship of architectural components that is somewhat different from conventional architectural design. With a sustainable approach, architectural components defer to the character of the building they occupy so that the experience of the building will be paramount. More ecological knowledge is at the core of sustainable design. Instead of human functional needs driving the architectural design, building components respond to the indigenous spatial and natural character, as well as compatibility with the existing cultural context.

The greatest challenge in achieving sustainable design is to realize that much of environmental characteristics can be learned from nature. When nature is incorporated into designs, spaces can be more comfortable, interesting, and efficient. It is important to understand natural systems and the way they interrelate in order to work within these constraints with the least amount of environmental system. Like nature, design should not be static but always evolving and adapting to interact more intimately with its environment.

Traditional development consists of identifying target customers and assessing their desires, and then trying to make visitors comfortable in familiar surroundings and in heavily manipulated environments. Typically much of the site is totally reconfigured with pools patios terraces, and vegetative compositions. The experience is very controlled and reflects the view that earth's resources are for human use.

Sustainable development focuses on the preservation and interpretation of indigenous natural and cultural resources rather than creating a contrived or artificial environment. The development accentuates the indigenous natural and cultural assets while respecting resource constraints.

The basic programmatic objective of sustainable development is to help users appreciate the natural and cultural uniqueness of a site by bringing them physically closer to it. To achieve this development, it must be human-scaled and intimate so that sensory features of the native landscape such as sights, smells and sounds are appreciated and preserved.

The basic environmental objective is to achieve these experiences within acceptable limits of change. If these objectives cannot be achieved on the same site, the development cannot be justified.

DESIGN CHECKLIST

The long-term objective of sustainable design is to minimize resource degradation and consumption on a global scale. Thus the primary objective of sustainable building design is to heighten environmental awareness. Sustainable building design must conform the checklist developed in accordance with their own unique cultural and resources conditions per three categories mentioned above.



CONCLUSION

Sustainable architecture describes the fact that we can only exist and create with the availability of natural resources. Those resources are the foundation of our world. Sustainable architecture proclaims this fact to the world. It is easy at this point to dismiss the whole argument of the impact of entropy on the creative process. There are the scale differences of the size of the universe as compared to our small efforts on the face of planet earth. There is the amount of potential energy available compared to the annual operating energies of our built environments. The amount of time evidenced by the life of the universe vs. the life of mankind really makes the whole concern regarding entropy irrelevant to our survival. These arguments are the arguments of those not convinced of the significance of sustainable architecture.

The artist states that our priority as a human being is to express ourselves and continuously say things in new and different ways. Resources are for consumption. Sustainability refers to the adjustments that we must make as we exhaust one form and use another in its place. On the other hand materialists make economic productivity, physical comfort and welfare for the priority of life. Consumption is what makes us motivated. But the earth's resources exist for our consumption. And adaptation occurs based upon the laws of supply and demand.

As per our oriental philosophy, circulation, harmony and interrelationship are key words approaching the analysis of whole substance. We exist with others and our existence ought to be proved by others. There must be no separation in between. We should live in union while we are one. Thanks.