Green Architecture Essay, Research Paper

Green Architecture

Green architecture is an approach to building which has become more popular in the last 25 to 30 years. Also known as sustainable design, green architecture is a method of design that minimizes the impact of building on the environment. Once thought of as unconventional and nonstandard, both regulatory agencies and the public alike are quickly accepting green architecture as a socially responsible and logical means of construction.

The beginnings of today’s green revolution can be traced back to the environmental awareness of the 1960s and European design. New construction techniques have lead to the development of innovative materials and design concepts. Green buildings are designed, constructed and commissioned to ensure they are healthy for their occupants. Successfully designed green projects can involve an extensive array of factors, ranging from the resourceful use of materials, to careful consideration of function, climate, and location.

The concepts about green architecture can generally be organized into several areas of application. These areas include sustainability, materials, energy efficiency, land use, and waste reduction.

Green buildings are not only designed for present use, but consideration is also been given to future uses as well. An adaptable structure can be "recycled" many times over the course of its useful life. If specific technical issues prevent use of the building for a new function, then the materials used in its construction are designed to facilitate ease of recycling and reprocessing of materials.

Buildings consume a variety of materials in their construction. Green design reduces the dependence on resource intensive products and materials. Today, there are an increasing number of products available made from efficient, earth-friendly, or recycled materials. In a green building, consideration is also given to the construction process itself. Materials that minimize waste or can be recycled, help contribute to an efficient and environmentally sensitive construction process.

Another important aspect of green architecture is the integration of energy efficient mechanical systems and conservation methods. Green buildings are designed to reduce or eliminate the dependence on fossil fuels. Additionally, green designs further help to minimize waste through the use of gray water recycling and other sustainable energy strategies. Grey water is conserved or saved to be recycled to water gardens.

Land use and building orientation also plays a critical role in green architecture. A green building is located to take advantage of its climate and surroundings. These conditions not only affect the efficiency of a building, but of the community and society as a whole. Planning for responsible land use addresses these issues through the consideration of climate, transportation, and the natural environment.

An amazing amount of waste is generated by the construction of a typical building. Green buildings are designed to eliminate waste by using modular systems of construction, recycled products, and efficient use of materials. The ideal green building would create no waste either during construction or use, so the impact on the environment and resources is minimized.

Environmentally sensitive development at all levels housing, commercial and institutional appears to be a very promising approach to help achieve sustainability in these terms. Humanity shares a common need for affordable, healthy, durable, comfortable housing and workspaces designed and built to maintain or uplift the human condition. Unfortunately this does not yet frequently occur as a rule throughout the World.

Some corporate leaders such as 3M, Dupont, Amoco, GE, and others have begun to recognize the market value of environmentally sound products and manufacturing approaches. Over the next 10 to 20 years, accelerated movement toward a more sustainable economy and infrastructure will be needed, to head off environmental problems such as global climate change, enlargement of the Ozone "hole," possible food-chain disruption and depletion of ocean fisheries, top-soil depletion and erosion, desertification, and ground water contamination.

Today, sustainable design is becoming a natural part of an increasing number of buildings. As natural resources dwindle, green design will take a critical role in our built environment.

http://www.architecture.about.com/arts/architecture/msubenv.htm

Encarta encyclopedia, 1995 Funk & wagnals Corporation.

http://www.nrg-builder.com/greenbld.htm