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Eco-architecture time in demand

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Abstract: This scientific in the article " Eco-architecture time on the subject of " on demand ". main concepts light up given

Key words: Eco-architecture , . Biophilic Design , BREEAM, Bosco Verticale , LEED, The Crystal, Masdar City.

Introduction

Eco-architecture the term modern architecture in the field important importance occupation is doing It is the environment protection do , from resources efficient use and social stability to provide directed . Today's in the day climate change , energy shortage and ecological problems eco-architecture principles relevance increases . This in the article eco-architecture concept , his main principles , advantages and time in demand place in detail analysis will be done .

Eco-architecture Main Principles

Eco-architecture one how many main to principles based on :

1. Nature with Harmony :

Eco-architecture natural environment with in harmony construction process development goal does Building on this of place natural the landscape save stay , natural ventilation and from the light use enters Eco-architecture buildings most of the time natural to the environment suitable coming to forms have will be

2. Energy efficiency :

Energy spending reduce of eco-architecture the most important aspects is one . The sun to this panels , wind energy and another again recoverable energy from sources use enters Energy thrifty materials , for example , insulation materials and energy efficient appliances also to eco-architecture enters

3. Local of materials usage :

Local materials with working transport costs reduces and local the economy supports . Local of resources use not only to the environment damage not to deliver , maybe of society economic stability to increase help gives

4. Again work and hard waste decrease :

Eco-architecture in the process materials again work and waste reduce important Construction in the process waste minimize and again processing possible was of materials use of eco-architecture main principles is one .

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5. Water resources efficient usage :

Water savings and him efficient to use eco-architecture in development important role plays Natural drainage systems , rain water collector systems and the water again work methods to eco-architecture special has been approaches .

Eco-architecture Advantages

Eco-architecture one row advantages has :

1. To the environment Effect : Eco-architectural buildings to the environment less damage delivers They are energy , water and another natural of resources efficient uses waste reduces and carbon track shortens .

2. To health Benefit : Natural materials , air cleaning systems and ecological in terms of clean work release methods a person health improves . Such in buildings residents more convenience and healthy to the environment have will be

3. Economic economy : Eco-architecture through energy and the water saving , waste reduction is also local of resources use expenses reduces It is economical in terms of useful to be with together , long in term stability provides .

4. Social sustainability : Eco-architecture local teams to develop help gives Local of materials use and local worker strength attraction to do the team connections to strengthen service does

Time On demand place

Modern in the world eco-architecture climate change of resources decrease and ecological problems such as solution in reaching important role plays United Nations Organization (UN) and another international organizations stable development provide in order to eco-architecture standards current is doing Current in the day a lot countries eco-architecture programs done increasing being , this in the field innovative technologies , scientific studies and experiences active is developing .

1. Eco-architecture History

- Historical development : Eco-architecture concept appeared in the 60s of the 20th century was It is ecological problems and climate change about of the public mind to increase directed .

- Early examples : Swedish in the 1970s from the architects one how many ecological in terms of clean buildings to design entered And in the 1990s this direction more expanded and new materials , technologies with will be enriched .

2. Eco-architecture Materials

- Again processed materials : Eco-architecture in projects again processed materials wide is used . For example , re processed concrete , wood and metal.

- Biodiesel , biomass : They construction in the process used alternative energy sources as to eco-architecture is entered .

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- Natural plaster: Natural plaster materials , for example clay and lime , internal and external on the walls is used .

3. Eco-architecture Types

- Passive eco-architecture : Construction in the process natural from resources , for example , from the sun or from the wind maximum level use

- Active eco-architecture : Under construction energy thrifty systems (for example , the sun panels) and smart technologies own into takes

- Again recoverable energy buildings : Such buildings energy work release and spending minimize with separate stands

4. Eco-architecture and Social Sustainability

- Local teams with cooperation : Eco-architecture projects local teams with in cooperation done their increase needs in consideration get important

- Social Aspects : Eco-architectural buildings most of the time social problems solution to do help gives , for example , economic supply , housing supply and others

5. Eco-architecture and Climate Change

- Effects : Eco-architecture climate to change reduction , carbon dioxide gas reduce and to the climate adaptation to provide help gives

- Adaptive design : Eco-architecture methods climate to change suitable coming new construction standards in development help gives

6. Examples of eco-architecture

- Khatam Mosque (Azerbaijan) : Energy efficiency and natural of materials use with eco-architecture example .

- The Edge (Amsterdam): Public transport, re processing possible was materials and energy efficiency according to in the world the most " green " office from the buildings one

- Bosco Verticale (Milan): Birds for to live place as to see possible has been vertical gardens with together to live place

7. Eco-architecture according to Innovations

- Green Technologies : Innovative materials , for example , acoustic and thermal insulating , ecological in terms of clean materials .

- Smart devices : In constructions energy spending monitoring and manage for smart technologies current to achieve

8. Challenges and Problems

- Financial Barriers : Eco-architecture projects done in raising financial of resources not enough

- Public reception : All public eco-architecture ideas does not support this while projects done in raising to difficulties take coming can

1. Eco-architecture and Management Systems

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- LEED (Leadership in Energy and Environmental Design): This is a global standard of buildings energy efficiency and ecological in terms of cleanliness level evaluation for is used . LEED certification to buildings energy efficiency , water savings and internal the air quality improve according to indicators present is enough

- BREEAM (Building Research Establishment Environmental Assessment Method): Britain system buildings ecological in terms of evaluation and in certification is used . BREEAM building to the environment effect evaluates and ecological in terms of clean the design encourages .

2. Energy Savings Technologies

- The sun energy : Sun panels and the sun from collectors use , electricity energy and the heat work release for very efficient is a method . An example for , the sun which uses the water heating systems a lot eco-architectural in buildings is used .

- The wind energy : Wind turbine and another the wind energy systems through energy work release opportunity Such energy sources most of the time big eco-architecture in projects is used .

3. Stable Materials

- Green concrete : This concrete work in release again processed materials and natural resources is used . It is ecological in terms of less is harmful and stable construction process provides .

- Ecological fat hungry : Eco -architecture in projects often again recoverable wood materials is used . Local from sources received fat hungry to the environment less damage delivers

4. Water Save Systems

- It's raining water collection systems : Rain water collection and save it as well gardens and another use for to use systems eco-architecture in projects wide is used .

- Water again work : Water again work and cleaning systems , for example , biological filters and the water cleaning stations , eco-architecture in the buildings important important have

5. Biophilic Design

- Nature with link : Biophilic design is people nature with to connect directed approach It is immovable of property internal and external environment natural elements , for example , plants , water elements and natural light with enrichment goal does

- Plants and green areas : In buildings green fields , gardens and vertical gardens such as elements a person health and well-being increases .

6. Eco-architecture In projects Innovations

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- 3D printing release : Construction 3D printing in the process release technology new opportunities is opening . This is the method fast and thrifty construction enable gives also waste reduces

- Green Roofs : Green roofs the ecosystem development and energy spending reduce for very effective They are the heat insulation makes water suck takes and the air quality improves .

7. Global Projects

- Masdar City (UAE): Energy efficiency and again recoverable energy sources based on completely green city

- The Crystal (London): Eco-architecture example as built in the building energy efficiency and to the environment has been effect reduced .

8. Eco-architecture and The future

- Climate change with struggle : Eco-architecture modern climate change problems answer to give for necessary It is energy efficiency increase and waste reduce through social and ecological stability provides .

- Reasonable cities : Eco-architecture of cities in the future more green and stable to be for important " Reasonable the concept of " cities ". energy and resources to optimization help gives

Summary

Eco-architecture modern architecture in the environment important place holds It is to the environment caution with approach , energy efficiency increase and economic in terms of useful solutions to search goal does Eco-architecture not only present problems solution to do , maybe the future generations for stable and comfortable to live conditions also help to create gives Eco-architecture development each of us because it is our responsibility this process whole of humanity the future determines

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