

Sustainable Practices In The Built Environment

A Guide to Greener Building

The built environment has a significant impact on the environment. In the United States, buildings account for approximately 40% of energy consumption and 30% of greenhouse gas emissions. Sustainable practices in the built environment can help to reduce these impacts and create healthier, more livable communities.

This book provides a comprehensive overview of sustainable practices in the built environment, covering everything from design and construction to operation and maintenance. It is written for architects, engineers, contractors, and other professionals involved in the design and construction of buildings.



Sustainable Practices in the Built Environment

by Colette Heneghan

★★★★★ 5 out of 5

Language : English

File size : 6195 KB

Screen Reader : Supported

Print length : 215 pages



The book is organized into four parts:

1. **Design for Sustainability:** This part covers the principles of sustainable design, including passive design, energy efficiency, and water conservation.
2. **Construction for Sustainability:** This part covers the sustainable construction practices, including the use of recycled materials, low-VOC paints, and energy-efficient appliances.
3. **Operation and Maintenance for Sustainability:** This part covers the sustainable operation and maintenance practices, including energy management, water conservation, and waste reduction.
4. **Case Studies:** This part provides case studies of sustainable buildings from around the world.

This book is a valuable resource for anyone who wants to learn more about sustainable practices in the built environment. It is a comprehensive guide that covers all aspects of sustainable building, from design and construction to operation and maintenance.

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Part 1: Design for Sustainability

The principles of sustainable design are based on the concept of reducing the environmental impact of buildings throughout their entire life cycle. This

includes the use of passive design strategies to reduce energy consumption, the use of recycled materials and low-VOC paints to reduce pollution, and the use of water-efficient fixtures and appliances to conserve water.

Passive design strategies take advantage of the natural environment to reduce energy consumption. This can include the use of natural daylighting to reduce the need for artificial lighting, the use of thermal mass to store heat and release it slowly, and the use of natural ventilation to reduce the need for air conditioning.

The use of recycled materials and low-VOC paints can reduce pollution. Recycled materials can help to reduce the amount of waste that is sent to landfills, and low-VOC paints can help to reduce indoor air pollution.

The use of water-efficient fixtures and appliances can conserve water. This can include the use of low-flow toilets, showerheads, and faucets, and the use of water-efficient landscaping.

Part 2: Construction for Sustainability

Sustainable construction practices can help to reduce the environmental impact of buildings during construction. This can include the use of sustainable building materials, the use of energy-efficient construction techniques, and the use of waste reduction strategies.

Sustainable building materials are made from recycled materials or from renewable resources. They can help to reduce the amount of waste that is sent to landfills and can help to reduce the demand for virgin materials.

Energy-efficient construction techniques can help to reduce the amount of energy that is used during construction. This can include the use of energy-efficient lighting, the use of energy-efficient heating and cooling systems, and the use of energy-efficient appliances.

Waste reduction strategies can help to reduce the amount of waste that is generated during construction. This can include the use of reusable materials, the use of recycling programs, and the use of waste reduction techniques.

Part 3: Operation and Maintenance for Sustainability

Sustainable operation and maintenance practices can help to reduce the environmental impact of buildings during operation. This can include the use of energy management strategies, the use of water conservation strategies, and the use of waste reduction strategies.

Energy management strategies can help to reduce the amount of energy that is used during operation. This can include the use of energy-efficient lighting, the use of energy-efficient heating and cooling systems, and the use of energy-efficient appliances.

Water conservation strategies can help to reduce the amount of water that is used during operation. This can include the use of low-flow toilets, showerheads, and faucets, and the use of water-efficient landscaping.

Waste reduction strategies can help to reduce the amount of waste that is generated during operation. This can include the use of reusable materials, the use of recycling programs, and the use of waste reduction techniques.

Part 4: Case Studies

This part provides case studies of sustainable buildings from around the world. These case studies provide real-world examples of how sustainable practices can be applied to the design, construction, and operation of buildings.

The case studies include a variety of building types, including office buildings, schools, hospitals, and homes. They demonstrate how sustainable practices can be used to create healthier, more livable communities.

Sustainable practices in the built environment are essential for creating a more sustainable future. This book provides a comprehensive overview of sustainable practices in the built environment, covering everything from design and construction to operation and maintenance. It is a valuable resource for anyone who wants to learn more about sustainable building.



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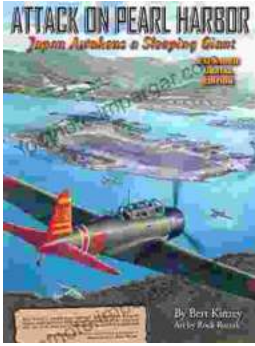
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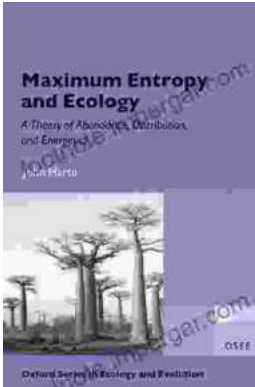
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