General principles of Sustainable Design

The concept of integrative and sustainable design recognizes that 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 approaches that exemplify the principles of conservation and encourage the application of those principles in our daily lives.

A model of the design principles necessary for sustainability is exemplified by the "Hannover Principles" developed by William McDonough Architects. "Sustainable design", "green design", "design with nature", "environmentally sensitive design", "ecologically sound design" - regardless of what it’s called the capability of natural and cultural systems to coexist over time, is key. Sustainable design embraces environmental stewardship, social responsibility, and long term economic viability. Sustainable design recognizes the impacts of every design choice on the natural and cultural resources of future generations.

The Hannover Principles as a set of guidelines for the Swall Institute design process

The Swall Institute building project is one approach to demonstrate the integrative decision making processeses to come to a 'sustainable' solution:

1. Insist on the right of humanity and nature to co-exist in a healthy, supportive, diverse, and sustainable condition.
2. Recognize Interdependence. The elements of human design interact with and depend on the natural world, with broad and diverse implications at every scale. Expand design considerations to recognizing even distant effects.
3. Respect relationships between spirit and matter. Consider all aspects of human settlement including community, dwelling, industry, and trade in terms of existing and evolving connections between spiritual and material consciousness.
4. Accept responsibility for the consequences of design decisions upon human well-being, the viability of natural systems, and their right to co-exist.
5. Create safe objects to long-term value. Do not burden future generations with requirements for maintenance or vigilant administration of potential danger due to the careless creations of products, processes, or standards.
6. Eliminate the concept of waste. Evaluate and optimize the full life-cycle of products and processes, to approach the state of natural systems in which there is no waste.
7. Rely on natural energy flows. Human designs should, like the living world, derive their creative forces from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.
8. Understand the limitations of design. No human creation lasts forever and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not an inconvenience to be evaded or controlled.
9. Seek constant improvements by sharing knowledge. Encourage direct and open communication between colleagues, patrons, manufacturers, and users to link long-term sustainable considerations with ethical responsibility, and reestablish the integral relationship between natural processes and human activity.

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1 The Hannover Principles were first formulated by William McDonough and Michael Braungart for planning Expo 2000 in Hannover.