

The Visual and Sensual Communication of Sustainability

A review of product and building manufacturing techniques to promote appropriate practices for building and product design to enhance sustainable lifestyles.

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The growth of knowledge and information in the field of Sustainable Design has grown exponentially in the past few years. When Rachel Carson wrote her landmark work *Silent Spring* in the early 1960s there was little awareness of the potential impacts of our global activities. Her work emerged at the same time that Planned Obsolescence was being coined to encourage greater consumption, particularly in North America, to promote economic recovery and raise the Gross National Product. Our progress since that time has been, at best, mixed.

In the early part of the 21st century we are now aware of Climate Change, and most people believe it is real; we are aware of declining non-renewable resources; we are aware of the impacts of industry on the environment; we have coined terms like Environmental Footprint; we are developing environmental standards and codes to limit the impacts: we are trying to save energy; we have initiated re-cycling programmes; and many other positive steps. However the GNP has no measure of environmental efficiency and the growth in wealth for most people continues. To some extent we have become victims of comfort, with little or no desire to lower our expectations for our lifestyles.

We thus face the dilemma of maintaining the quality of our lives while facing the need to respond to our relatively recently noted negative global impacts.

There can be little doubt that the industrial revolutions of the past 150 years have resulted in many of our environmental dilemmas. Prior to this period industrial activity evolved rather slowly. While often utilising hazardous practices, the impacts were not globally severe. The quantities were smaller and the land and water systems could recover, and we were always able to move on to pastures new. For example, our concerns for the incrementally increasing amounts of horse manure seen in major cities were allayed, almost ironically, by the development of the automobile. At that time we had already developed many useful technologies in both building and manufacture; the use of bricks and timber framing; knowledge of metals and their refined uses; ceramics and glass were fast becoming mature industries, all while we tried to increase our prosperity and reduce drudgery in the home. Indeed, the need for the daily ritual of maintenance of the home and its contents became less onerous as labour saving devices were born. Slowly users and consumers were being removed from the need to understand their homes and the products they used and consumed as we moved to the Consumer Society that has brought to many of our concerns today.

While laws, industrial codes and standards are in the process of development, the author will attempt to promote the need to re-establish the symbiosis between the user and the products around them - to reconnect our lifestyles with the realities of our environmental impacts.

This paper will investigate, with visual examples, the importance of products and buildings to give visual and sensual indicators of their sustainability. Aspects explored will include materials, manufacturing and building techniques, de-construction and disassembly techniques, traditional and modern manufacturing and assembly techniques and their impacts on user maintenance, tinkering, repair.

In brief, the intent is to identify formal and sensual semantic codes for the design and manufacture of buildings and products to reflect a more natural flow of human activity in the face of our concerns for globally sustainable manufacture and waste creation.