its air, water, and soil. While there remain many controversies about the relative cause and effect of human interactions on the environment and even more controversy about the timing of specific effects, there is a growing consensus within the overall scientific community as to the overall trends. Those trends indicate that the health of the environment is deteriorating, at an accelerating pace, because of the impact of humans.

It is, in many ways, a revolutionary time in design. Significant environmental concerns mean that the very definition of good design is being redefined. Sustainable design, green design, and environmental design will be common practice in the future. Soon, the central practical issue for designers will change from one of education to one of ethics. In the near future, a design will be considered good only if it is healthy for its users and for the earth's environment. Building designers are primarily responsible for the decisions that affect our built environment. They have a unique opportunity. For every material, system, or product decision that they make, there is a significant range of choices. Some are toxic to users and the earth. Others are far less so and in some cases approach sustainability and even a degree of healing. The choices are for design professionals to make. If they choose conscientiously and wisely, they have the opportunity not only to improve individual buildings, but also to help build a healthier environment for all. If, collectively, design professionals can improve the environmental performance of the built environment, they can have a tremendous impact in reducing the overall environmental problem on earth. That impact is not only significant but also within the profession's reach, within the bounds of existing market forces.

Even though growing numbers of clients are asking about sustainable design issues, it will remain the responsibility of designers to bring their full knowledge of environmental issues to each project. In what follows, we will develop the range of issues facing design professionals, and indicate the knowledge they must master, using buildings as a central example.

ENVIRONMENTAL CONCERNS

The modern environmental

The modern environmental movement generally originated in the 1960s. There was growing concern about the use of pesticides and the quality of air and water. Lake Erie was dying, as were many of the acid rain-plagued forests of the Northeast. Waste was a growing problem and recycling was virtually unknown. The first of a series of what became known as "Superfund" sites, where extensive pollution was identified, became important local and national issues. Efforts to deal with these issues received widespread public support. The Nixon administration addressed environmental concerns with the first broad environmental legislation and the creation of the Environmental Protection Agency. The concerns were heightened in the 1970s by the energy crisis and later by the concern over the discovery of a hole in the ozone layer. During the 1980s, many people began to realize that it was necessary not only to clean up environmental problems but also to find innovative ways to avoid the pollution problem in the first place. Today, we are increasingly finding that not only are there many ways to avoid pollution but also that in doing so we can produce buildings that are more attractive, productive, and economical to build and operate than "typical" buildings.

In the last three decades we have made a great deal of progress in dealing with many environmental issues. The air is substantially cleaner in most of our major urban areas. The water quality in many rivers and streams is also much higher. Most of our industrial processes are cleaner than they were just a decade ago. Our buildings are far more energy efficient than they were in the 1960s. The industrial nations of the world worked together to eliminate the use of chlorofluorocarbons (CFCs), one of the gases most damaging to the ozone layer, and are working on other issues. Lake Erie has come back.

THE SITUATION TODAY

The problems that we face

The problems that we face today are of a substantially different kind than those we faced 30 years ago. Many of the problems of that time were highly visible–dirty lakes and streams, smog, and dying forests. That public visibility had a great deal to do with the widespread public support for dealing with