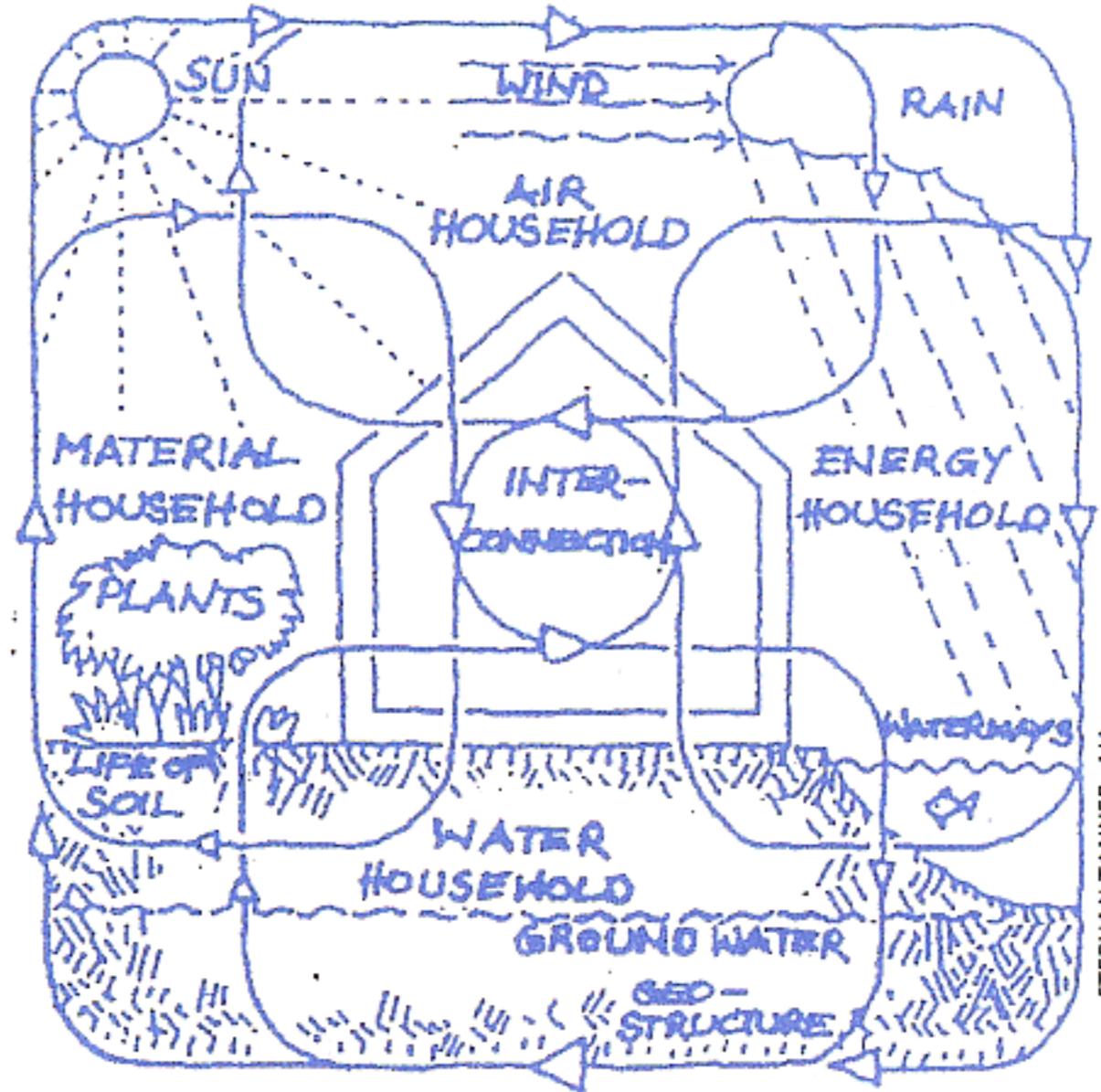


American Model



European Model

Some of the new ideas investigated worked; many did not. Ultimately most experimentation in sustainable design was abandoned, largely because Americans perceive such a calamity as an energy shortage not as a paradox (ripe for self-reflection, intellectual probing and pragmatic applications), but rather as a problem to be fixed with a simple, one-shot solution. With a silver bullet, if you will.

Which brings us to the second question about sustainable technologies. Because of their fix-it mentality, Americans are keeping pace, if not leading, the development and application of new green building technologies. In our global marketplace, technologies are bought, traded and implemented around the world.

It's not the implementation or quick fix that's difficult, however. Using sustainable technologies as part of an integrated, holistic approach to building design and construction—while taking into account a building's impact on communities, natural resources and economics—is what's so hard for many American building professionals to practice.

An integrated approach to sustainable design is really quite basic: reduce the need for resources throughout the life of the building. Briefly, here's how it works. When architects begin design, they first consider daylighting and natural ventilation, which limit the depth of the building. Scale and site orientation follow. Then they add nonmechanical building components, like operable windows in strategic light locations.

Next they consider the climate, and solve heating and cooling concerns with such building-system solutions as passive solar, thermal mass and highly insulated shells. They look at mechanical systems or technology (such renewable-resource systems as co-generation, photovoltaic cells or the reuse of left-over energy) for additional support for lighting, heating or cooling deficiencies. The end result is a fully climatized, energy-efficient, resource-saving building. The key is the from-the-ground-up, integrated approach.

When it comes to sustainable design, what many American architects still need to learn from their European counterparts is integration. Focusing on specific design solutions or individual building parts does not result in a holistic approach to sustainable design. Rather, the magic lies in the integration and optimization of the whole.

Architects with great ideas, builders ready for change, suppliers with new inventions in technology, developers setting new expectations and clients with vision—each one taking leadership in discovering the interconnection between architecture, community, economy and the environment—are all pieces of a complete, sustainable-design approach.

So the answer to both questions posed is really an issue of cultural perception. Only when a whole society (not just the building community) changes its approach from simple problem solving to an integrated consideration of paradox, will sustainability be at the core of design.