



Yale-New Haven
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Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2013 Volume III: Sustainability: Means or Ends?

Introduction

We typically think of sustainability as resulting from a societal adherence to an established list of protocols and procedures. If our actions are derived from this list, then surely the results will contribute to a more sustainable planet. As such, we have assigned moral value to those actions: those whose intentions are deemed as sustainable, regardless of the actual long term results, are good or right, whereas all other actions, including those that are normative, are bad or wrong. Photovoltaics represent sustainability and therefore must indeed be sustainable. If conventional engineered materials are detrimental, then materials that nominally evoke the natural must be beneficial. Walls constructed from straw bales are good, facades sheathed in titanium are bad. Technologies such as nuclear power that don't consume fossil fuels in their operation are good regardless of all other consequences. Check-off lists don't allow for ambiguity or contingency.

Our failure to curb the ever increasing rise in energy use or to stem the impact of energy on climate change is often attributed to a societal failure in collectively implementing the agreed upon list of sustainable actions. In 2000, the U.S. consumed forty-five percent more energy than it did in 1970, and it is expected to consume ninety-three percent more by 2020. This measured and projected data corresponds to time periods in which numerous initiatives for conserving energy have been put in place. Good intentions have not produced effective results.

Rather than looking at the accepted rules and solutions that are currently associated with sustainability, this seminar stepped back to redefine the problems by asking deeper questions. What are the fundamental behaviors and laws, and how do we causally develop approaches based on an understanding of the relevant variables and properties? How do different systems interact? What domains must we consider? The units developed during this seminar are representative of these deeper, more complex questions.

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