

*The Cuyahoga River: A Manual for the Environmental Study of a Real System (1970)*

It has become a truism that man does not operate in a vacuum, that his activities have effects on the environment in which he lives. But what does this really mean? What are these effects? How do we measure them? What frame of reference must we bring to bear on any system in order to understand it? These questions are not simple ones, yet they are fundamental to our being able to deal with any real situation. The purpose of this study is to deal with these questions, to examine a specific system with the dual aims of understanding how it operates as a system and perceiving what it is that man does to it.

The system chosen is the Cuyahoga River of Northeastern Ohio. In addition to its inherent interests to residents of the Cleveland area, it is well suited to our purposes for many reasons: it is a dynamic natural system, with all the reality inherent in natural systems; its origin and history can easily be reconstructed; it varies from an essentially unsullied brook in the farmlands of northeastern Ohio to a sewer for the municipal and industrial wastes of one of the countries most highly urbanized regions; the human uses and misuses of the river can easily be recognized, and if the inter-relationships between them can be identified, then it will be possible to reach a genuine understanding of the interaction between man and the river. This, then, can serve as an example for other types of natural systems with which we come into contact.

With increasing time and sophistication, the study of a river like the Cuyahoga can provide much greater insight into the effects outlined above. It would be inconceivable that beginning student would emerge from a first study of the Cuyahoga River System with a complete understanding of all the complexities of even this small river. It is our earnest hope and expectation that he will emerge with a greater feeling for the types of interactions taking place between the various phases of the environment in which he lives and of which he is a part.